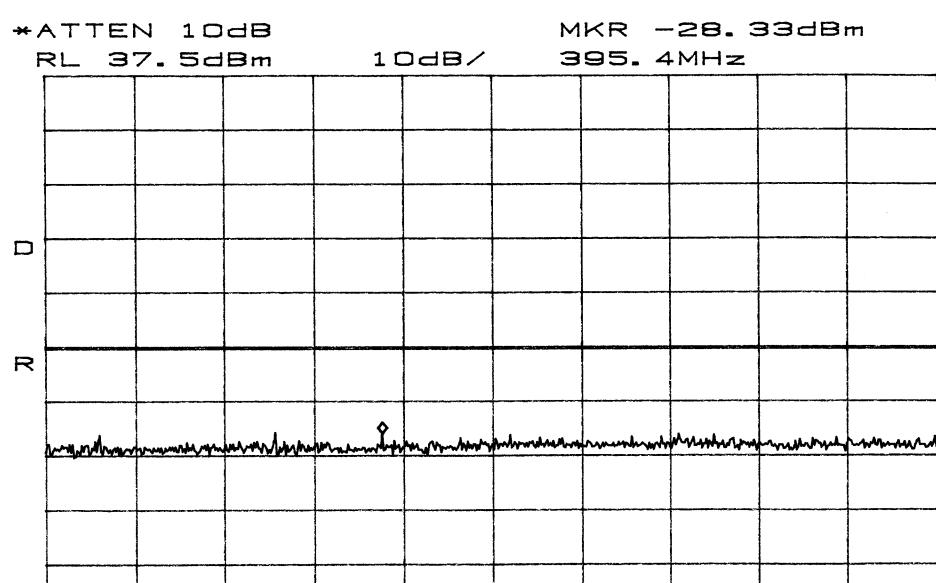


FM

close



START 30.0MHz STOP 1.0000GHz *RBW 100kHz VBW 100kHz SWP 250ms

File No. NC107868, Page 235 of 292



BANDE FM

close

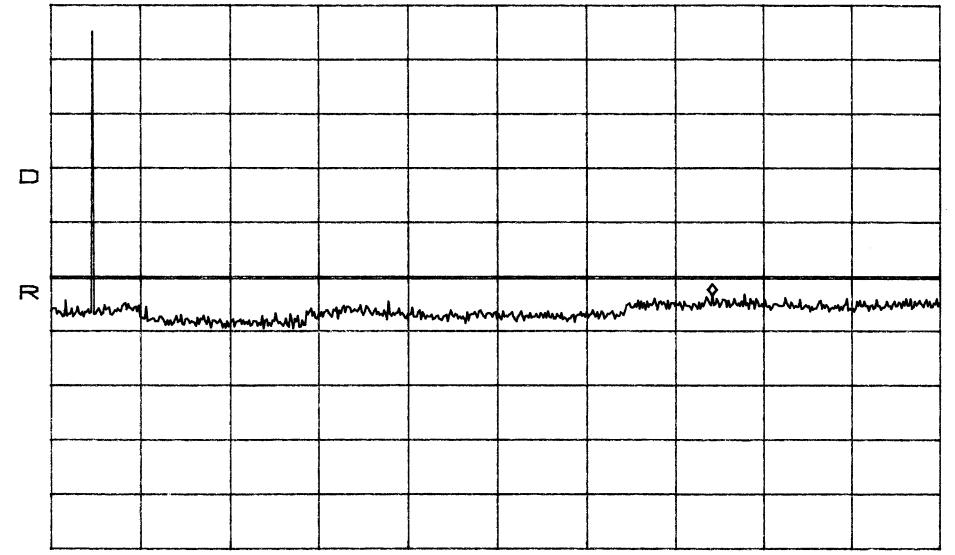
*ATTEN 10dB

MKR -15.83dBm

RL 37.5dBm

10dB/ 15.

15.09GHz



START 1.00GHz STOP 20.00GHz *RBW 1.0MHz VBW 1.0MHz SWP 380ms

File No. NC107868, Page 236 of 292



BAND F FM

Apart

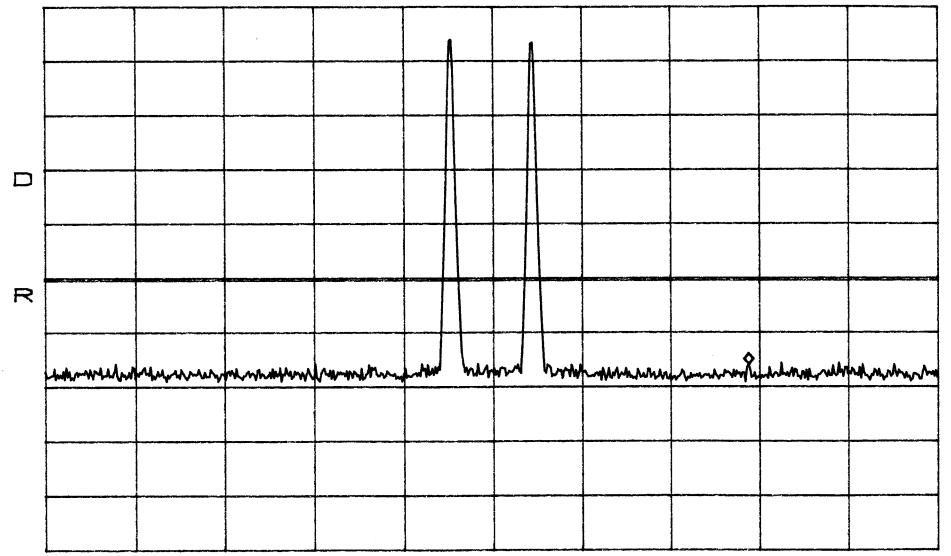
*ATTEN 10dB

MKR -28.33dBm

RL 37.5dBm

10dB/

1.90192GHz



CENTER 1.88750GHz *RBW 100kHz VBW 100kHz

SPAN 50.00MHz SWP 50ms

File No. NC107868, Page 237 of 292

IMD Apart

BAND E FM

10dB/

MKR -28.67dBm

RL 37.5dBm

*ATTEN 10dB

460. OMHz

R

START 30. OMHz VBW 100kHz 100kHz *RBW

File No. NC107868, Page 238 of 292

STOP 1.0000GHz

SWP 250ms



BAND E FM

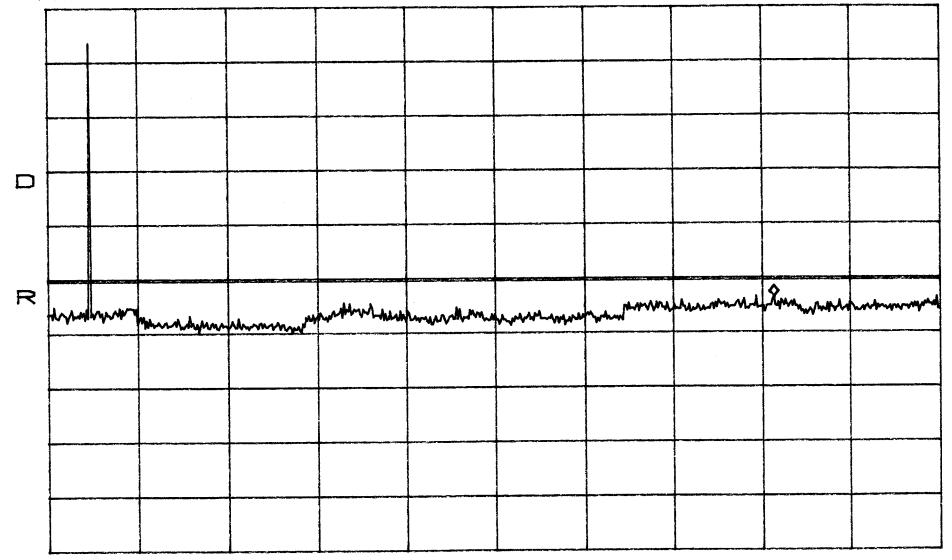
Apart

*ATTEN 10dB

MKR -16.00dBm

RL 37.5dBm

16.45GHz 10dB/



STOP 20.00GHz 1. 00GHz START 1. OMHZ VBW 1. OMHZ SWP 380ms *RBW

File No. NC107868, Page 239 of 292



BAND E TDMA

10dB/

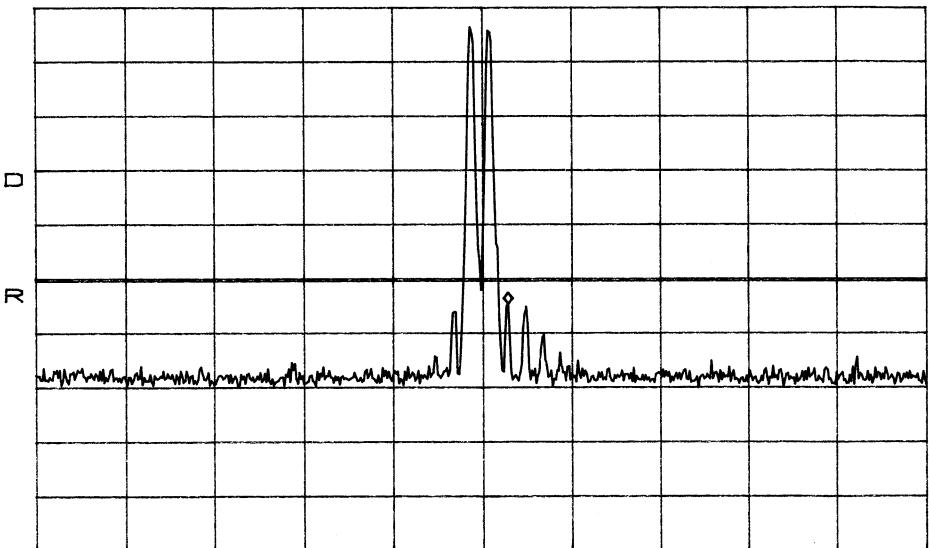
Close

*ATTEN 10dB

MKR -17.00dBm

RL 37.5dBm

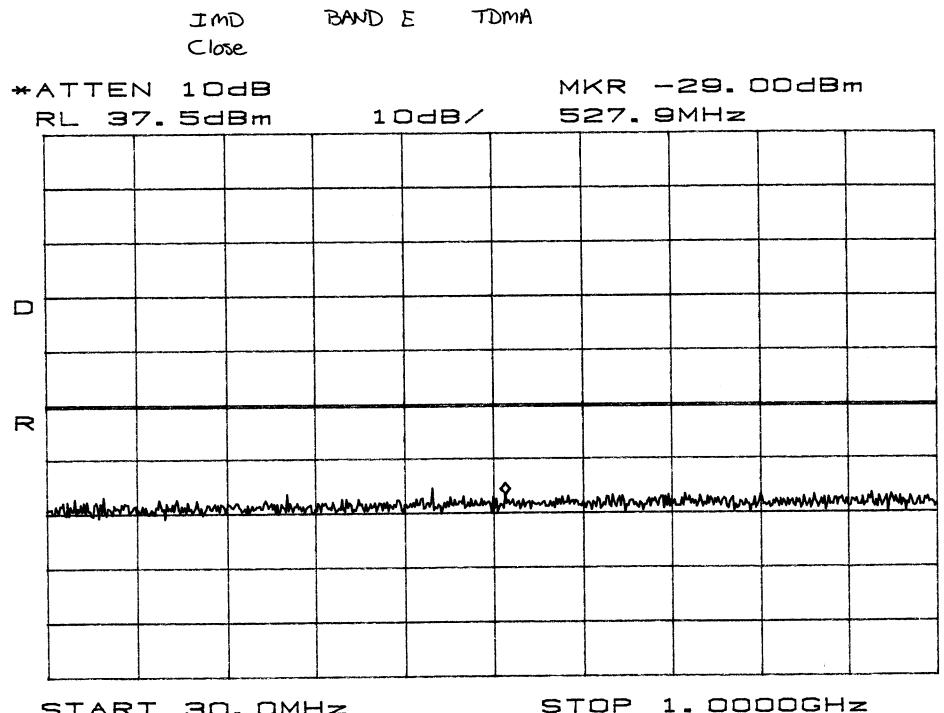
1.88717GHz



CENTER 1.88575GHz 100kHz SWP 50ms 100kHz VBW *RBW

SPAN 50.00MHz

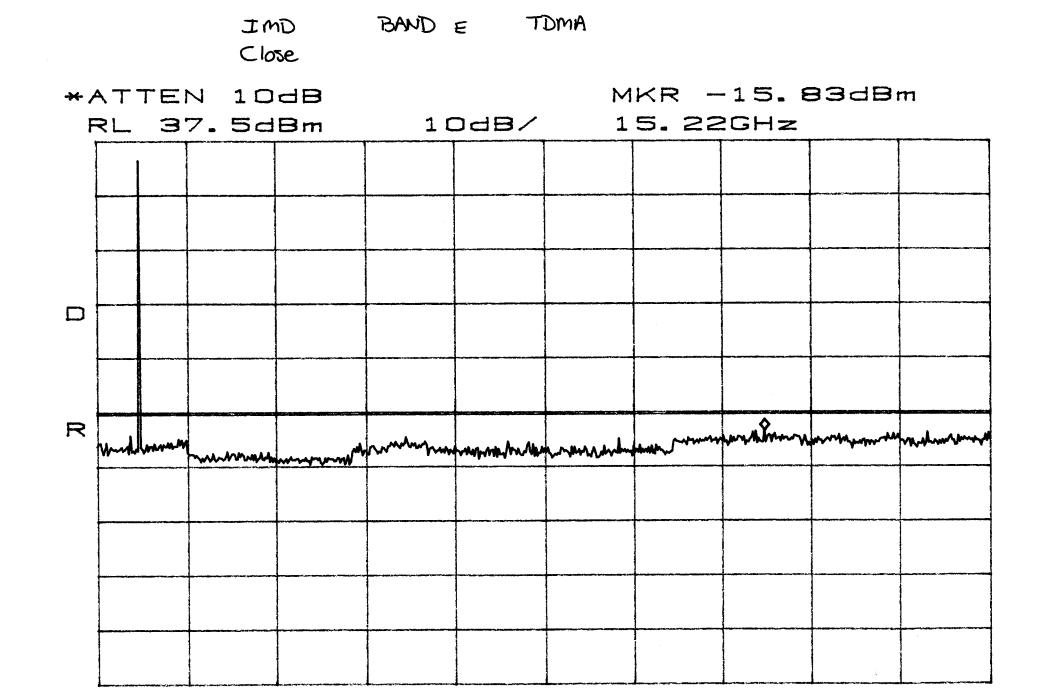
File No. NC107868, Page 240 of 292



START 30. OMHZ STOP *RBW 100kHz VBW 100kHz

SWP 250ms

File No. NC107868, Page 241 of 292



START 1.00GHz STOP 20.00GHz *RBW 1.0MHz VBW 1.0MHz SWP 380ms

File No. NC107868, Page 242 of 292



BAND E TOMA

10dB/

MKR -28.17dBm

RL 37.5dBm

*ATTEN 10dB

1.89733GHz

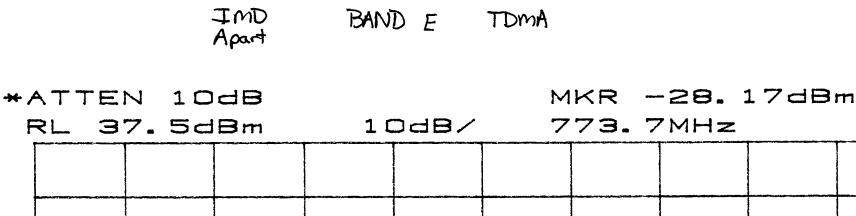


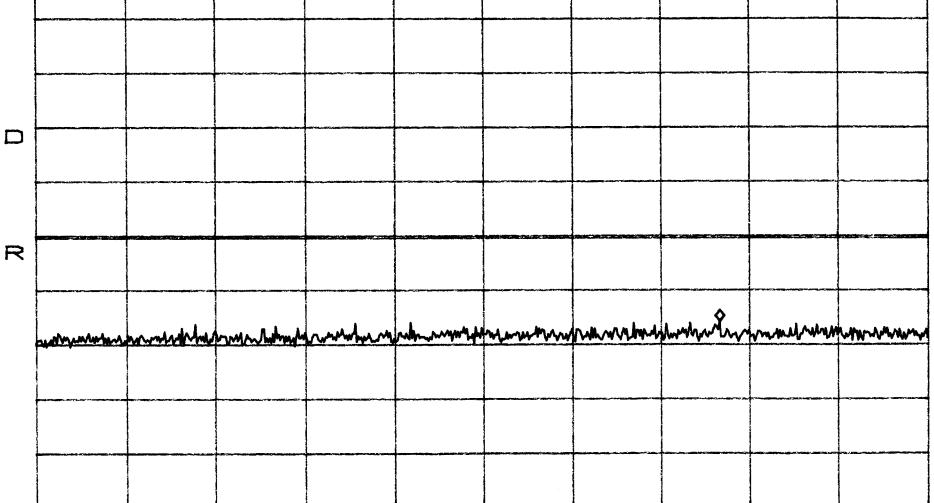
1.88750GHz CENTER VBW 100kHz *RBW 100kHz

SPAN 50.00MHz

SWP 50ms

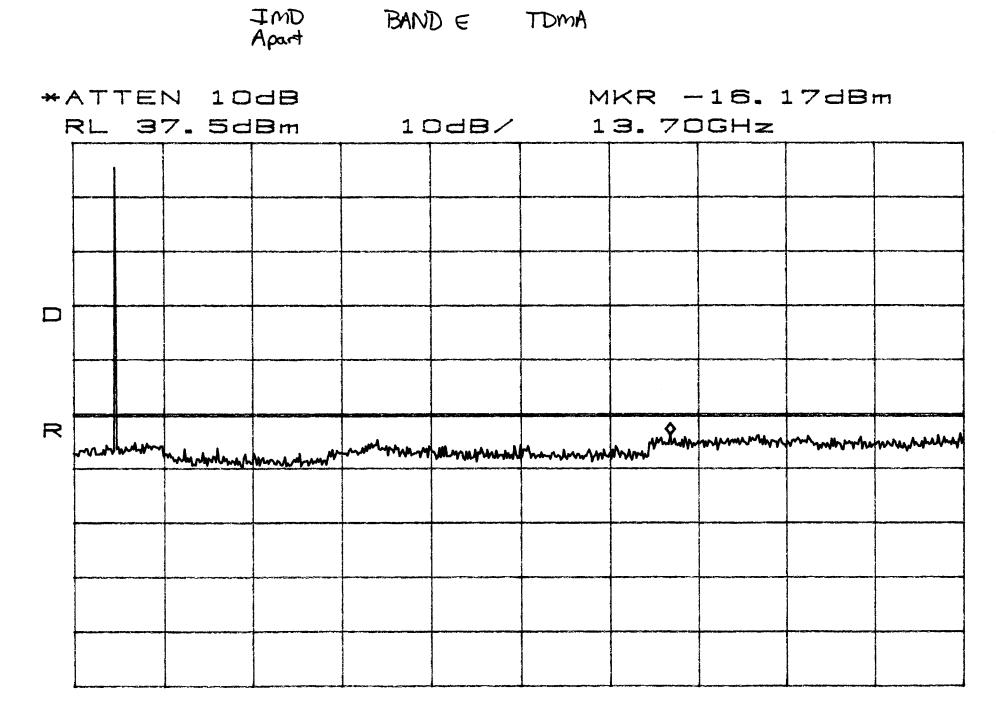
File No. NC107868, Page 243 of 292





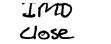
START 30.0MHz STOP 1.0000GHz *RBW 100kHz VBW 100kHz SWP 250me

File No. NC107868, Page 244 of 292



START 1.00GHz STOP 20.00GHz *RBW 1.0MHz VBW 1.0MHz SWP 380ms

File No. NC107868, Page 245 of 292



DMA

ATTEN 10dB VAVG 100 MKR -32.33dBm RL 34.5dBm 10dB/ 1.88975GHz

BANDE

1.88975GHz MM M R han Magnumperson when the man of the second man many more hand the second

CENTER 1.88675GHz SPAN 50.00MHz *RBW 100kHz VBW 100kHz SWP 50ms

File No. NC107868, Page 246 of 292

IMD Close BAND E COMA

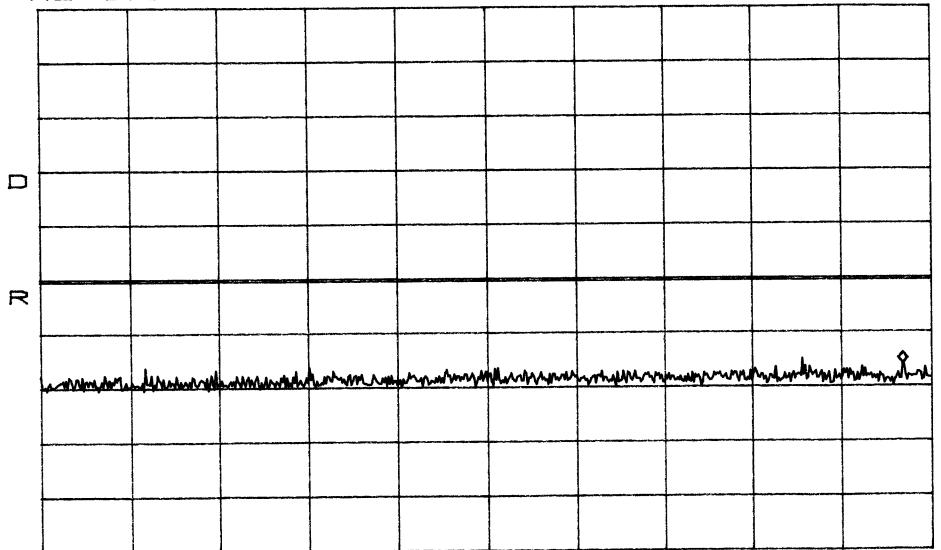
MKR -28.33dBm

RL 37.5dBm

*ATTEN 10dB

10dB/ 969.3

969.3MHz



START 30.0MHz STOP 1.0000GHz *RBW 100kHz VBW 100kHz SWP 250ms

File No. NC107868, Page 247 of 292

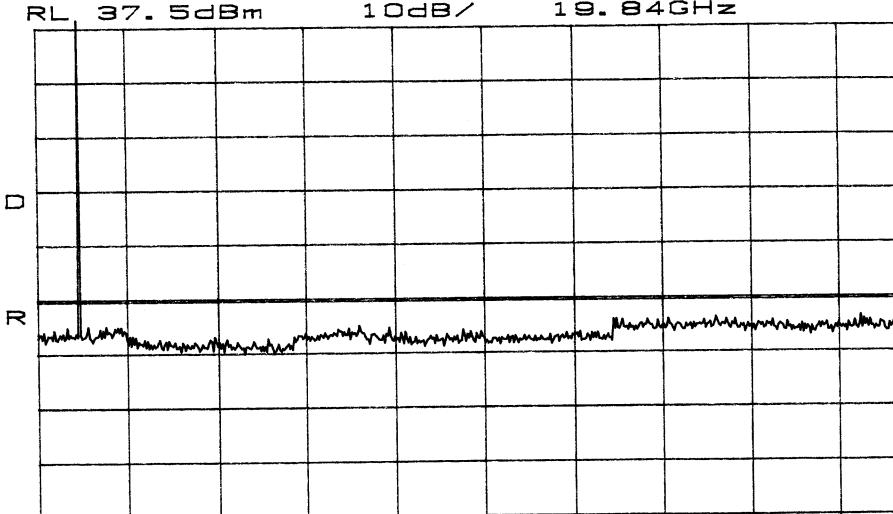


BANDE COMA

MKR -15.17dBm

*ATTEN 10dB

19.84GHz



STOP 20.00GHz 1.00GHz START *RBW 1.OMHZ VBW 1.OMHZ SWP 380ms

File No. NC107868, Page 248 of 292



<dma

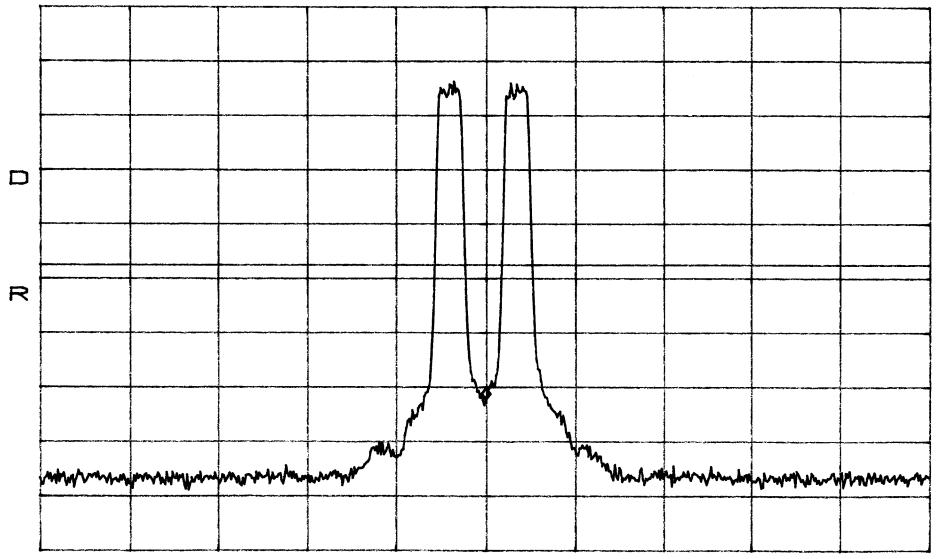
Apart

ATTEN 10dB VAVG 100 MKR -37.67dBm

RL 34.5dBm

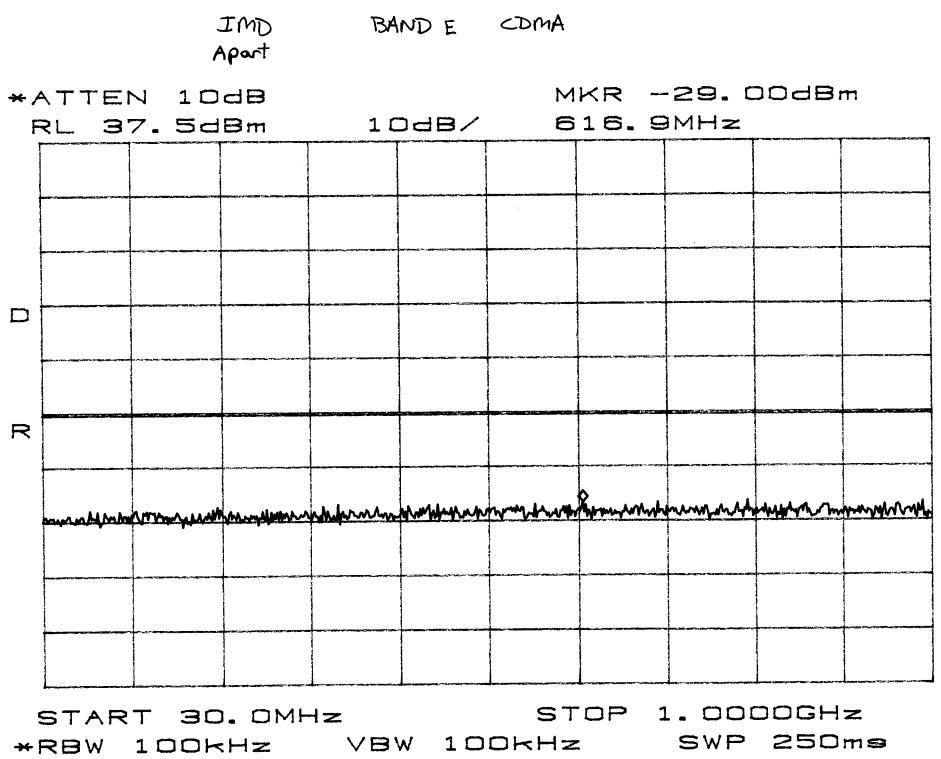
10dB/ 1.

1.88750GHz

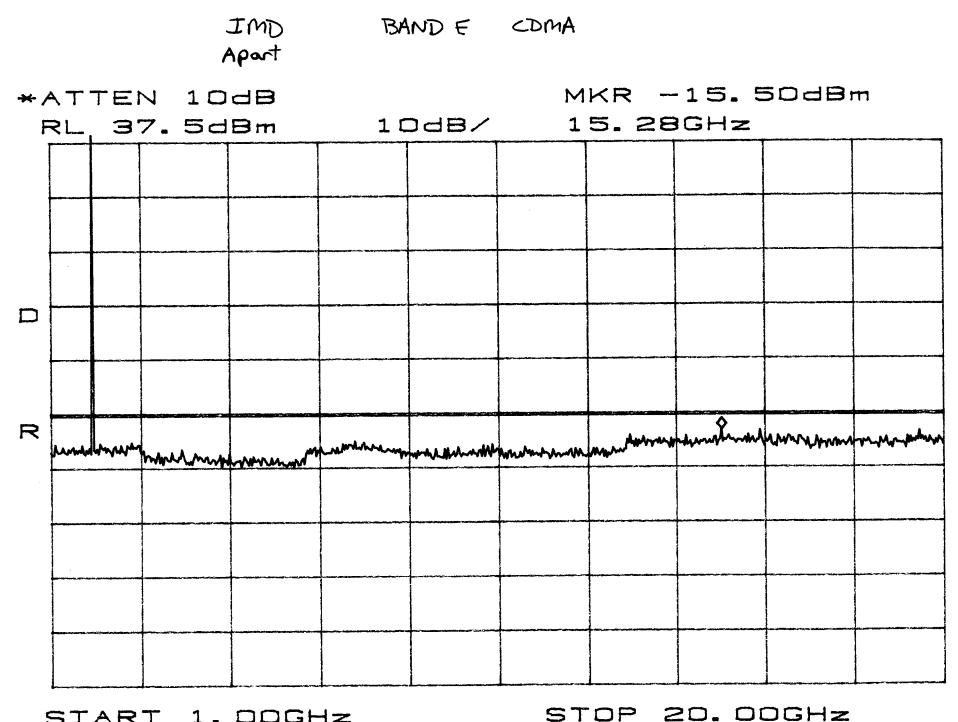


CENTER 1.88750GHz SPAN 50.00MHz *RBW 100kHz VBW 100kHz SWP 50ms

File No. NC107868, Page 249 of 292



File No. NC107868, Page 250 of 292



START 1. DOGHZ STC *RBW 1. OMHZ VBW 1. OMHZ

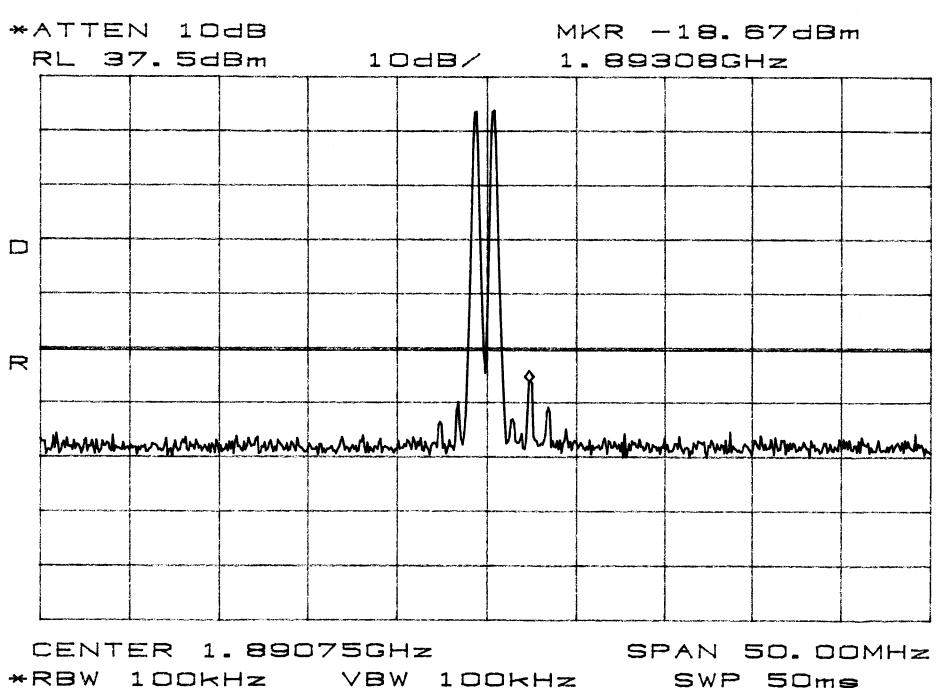
SWP 380me

File No. NC107868, Page 251 of 292



BAND F FM

close

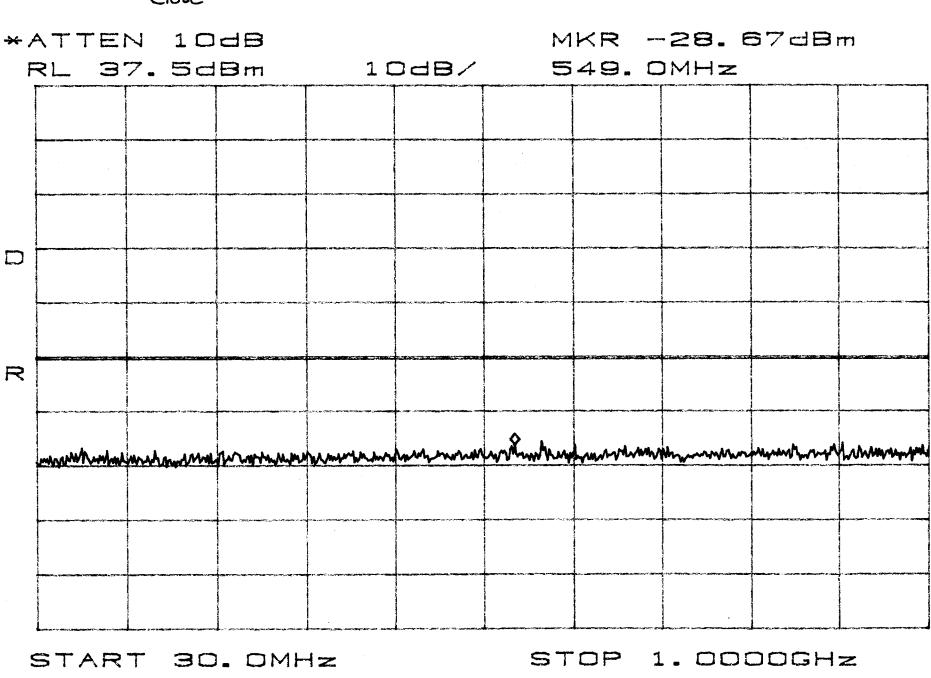


File No. NC107868, Page 252 of 292



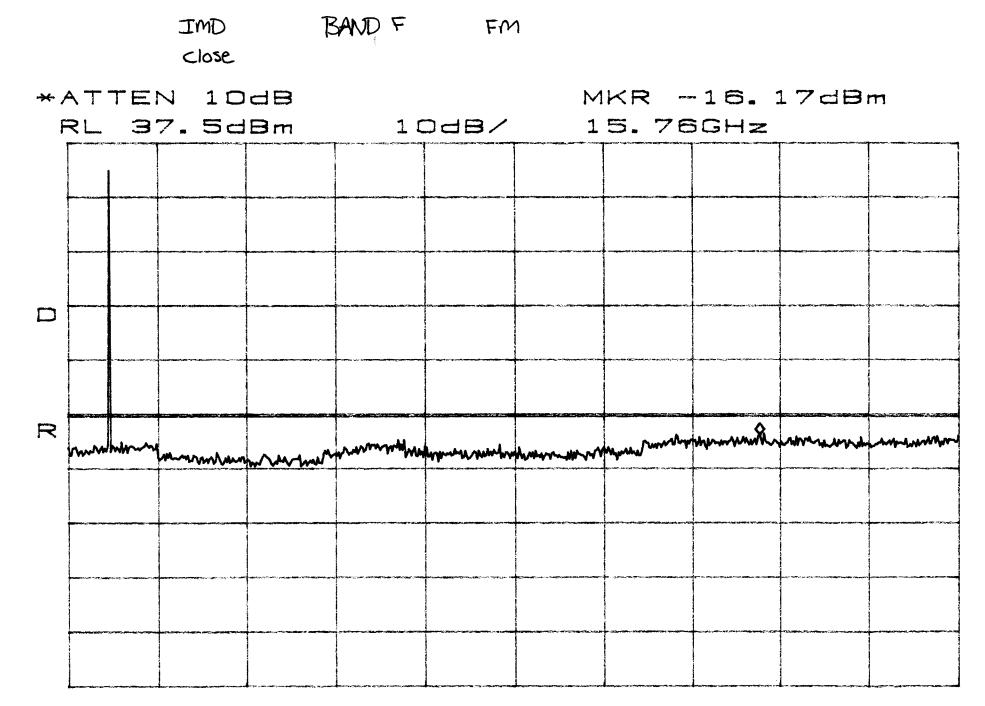
BAND F FM

close



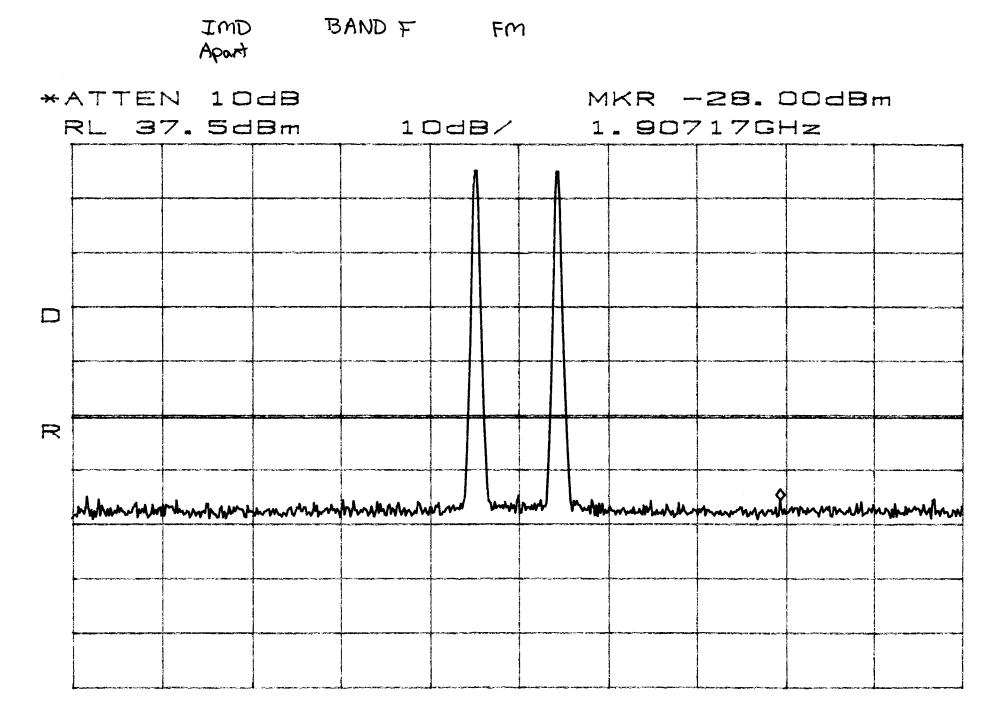
100kHz VBW 100kHz *RBW

250me SWP File No. NC107868, Page 253 of 292



START 1.00GHz STOP 20.00GHz *RBW 1.0MHz VBW 1.0MHz SWP 380ms

File No. NC107868, Page 254 of 292



CENTER 1.89250GHz *RBW 100kHz VBW 100kHz SPAN 50.00MHz

SWP 50ms File No. NC107868, Page 255 of 292



BAND F FM

Apart

*ATTEN 10dB

MKR -28.33dBm

RL 37.5dBm

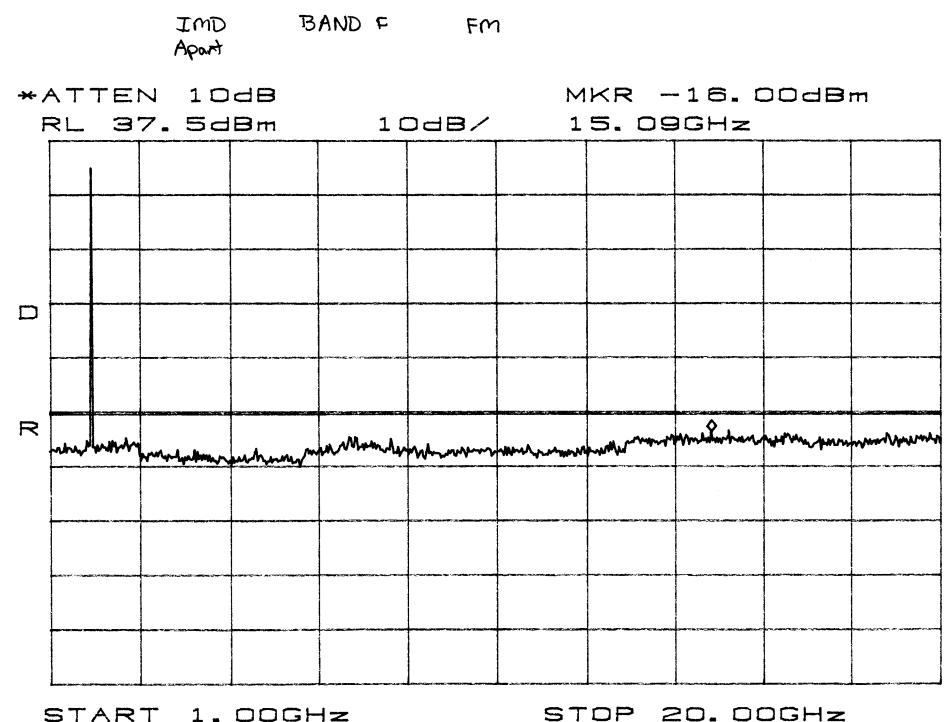
10dB/

718.7MHz

R hand an alter and and man her alter at the second and the second a ~ May my har many and and my many

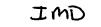
STOP 1.0000GHz START 30. OMHz *RBW 100kHz VBW 100kHz SWP

250me File No. NC107868, Page 256 of 292



START 1.00GHz STOP *RBW 1.0MHz VBW 1.0MHz

SWP 380ms File No. NC107868, Page 257 of 292



BAND F TDMA

Close

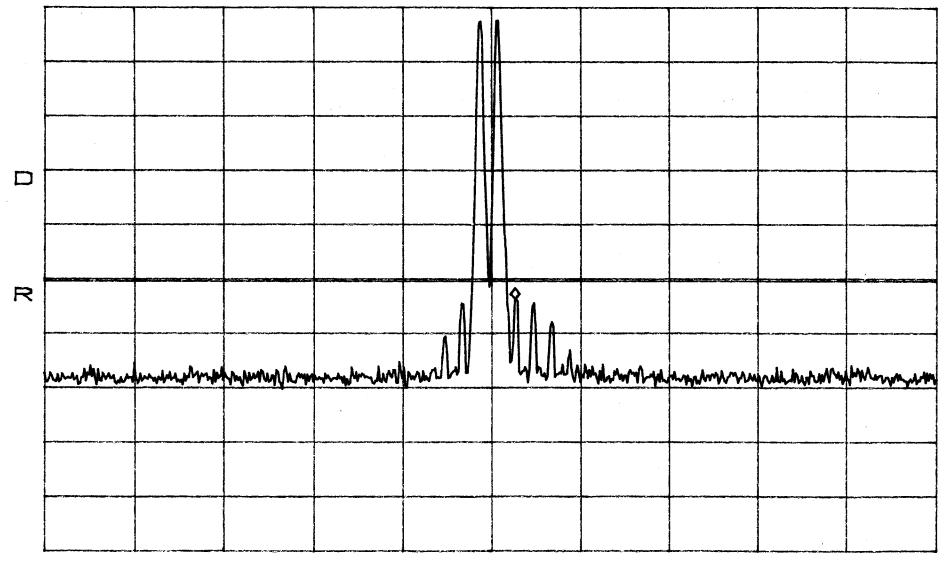
*ATTEN 10dB

MKR -16.17dBm

RL 37.5dBm

10dB/

1.89208GHz



CENTER 1.89075GHz *RBW 100kHz VBW 100kHz SPAN 50.00MHz

SWP 50mg File No. NC107868, Page 258 of 292



BAND F TDMA

10dB/

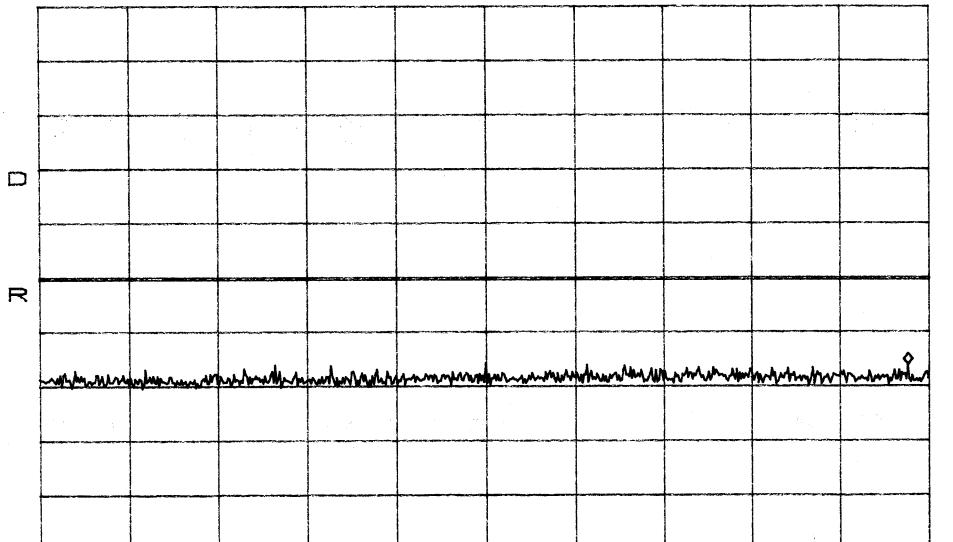
Close

*ATTEN 10dB

MKR -28.50dBm

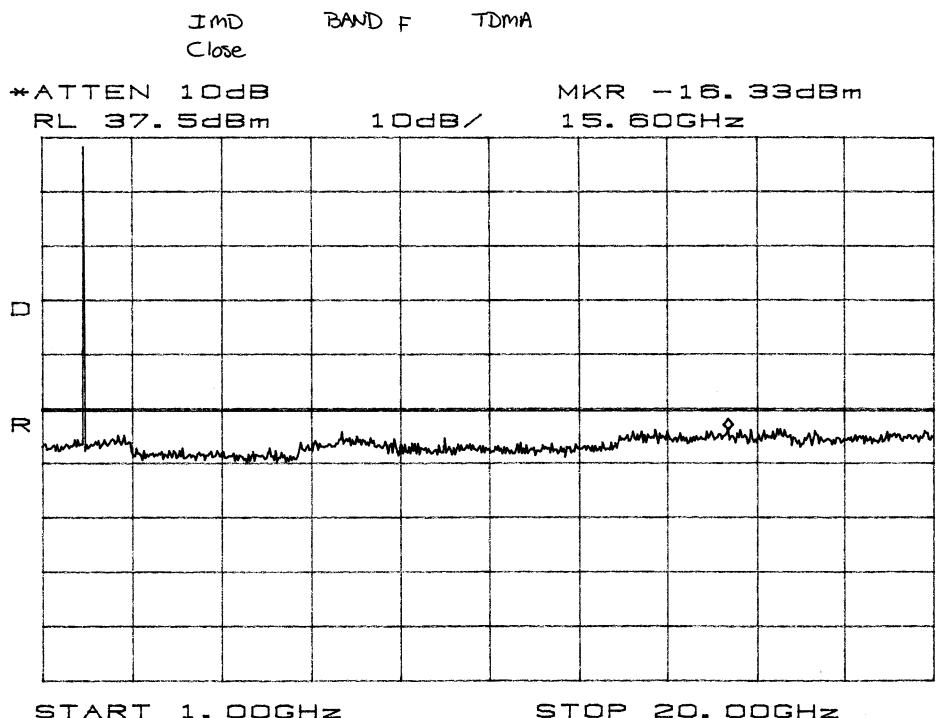
RL 37.5dBm

977.4MHz



STOP 1.0000GHz START 30. OMHz 100kHz SWP 250ms 100kHz VBW *RBW

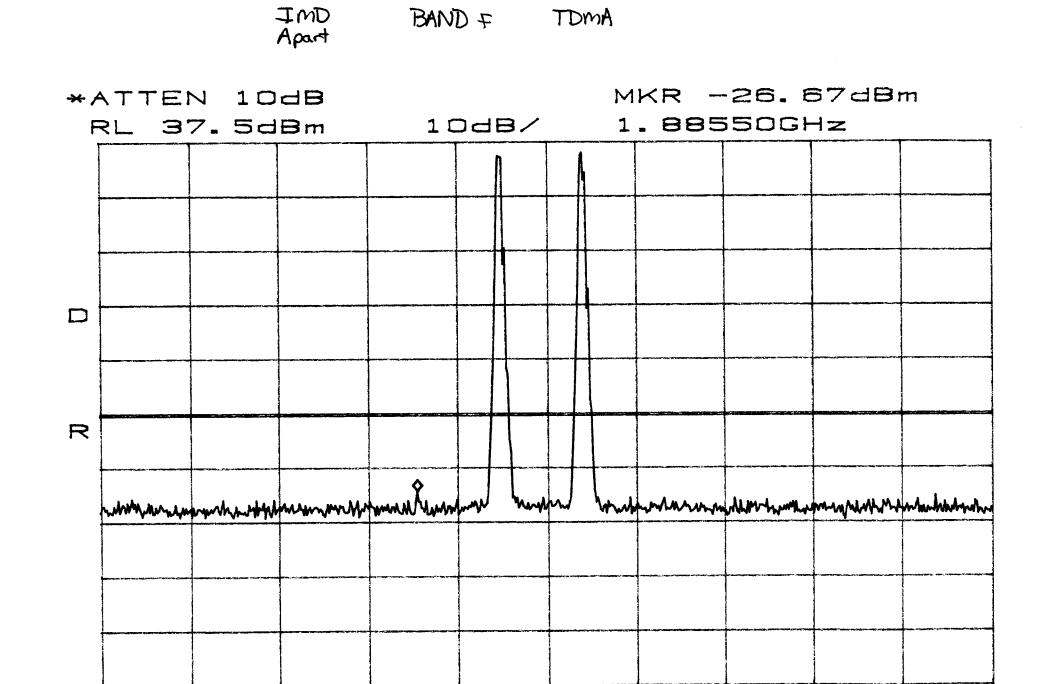
File No. NC107868, Page 259 of 292



START 1. DOGHZ STOF *RBW 1. DMHZ VBW 1. DMHZ

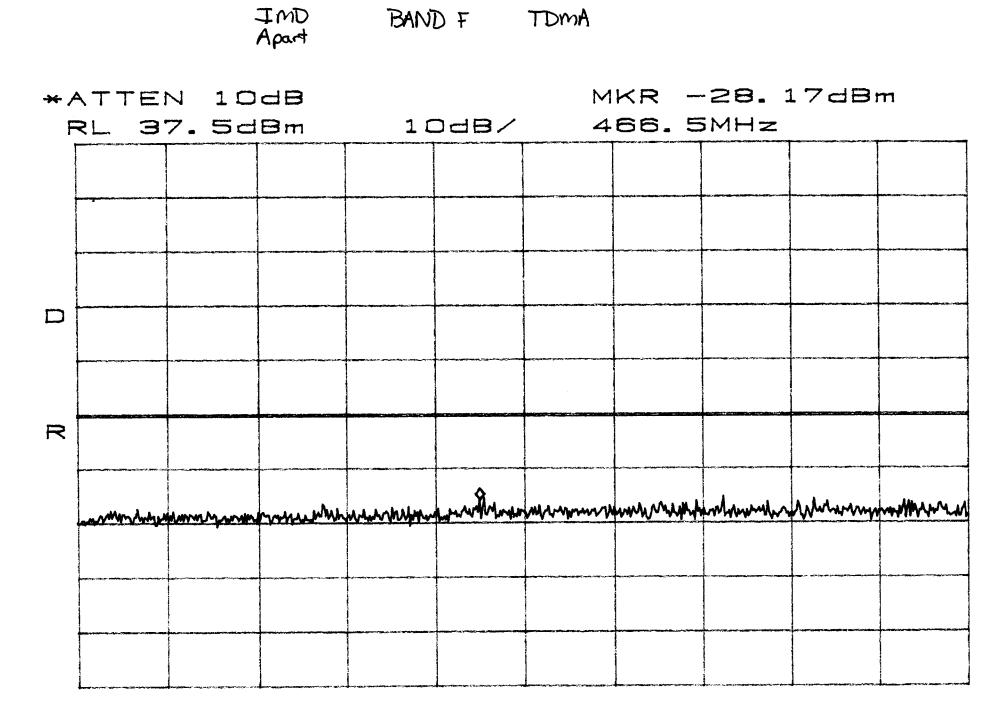
SWP 380ms

File No. NC107868, Page 260 of 292



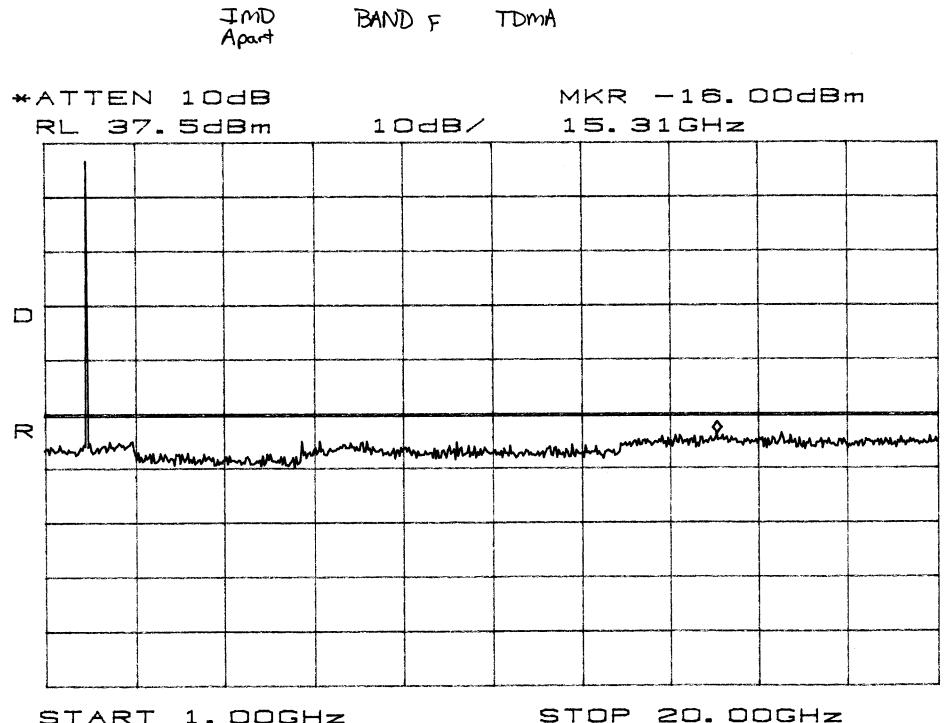
CENTER 1.89275GHz SPAN 50.00MHz *RBW 100kHz VBW 100kHz SWP 50ms

File No. NC107868, Page 261 of 292



START 30.0MHz STOP 1.0000GHz *RBW 100kHz VBW 100kHz SWP 250ms

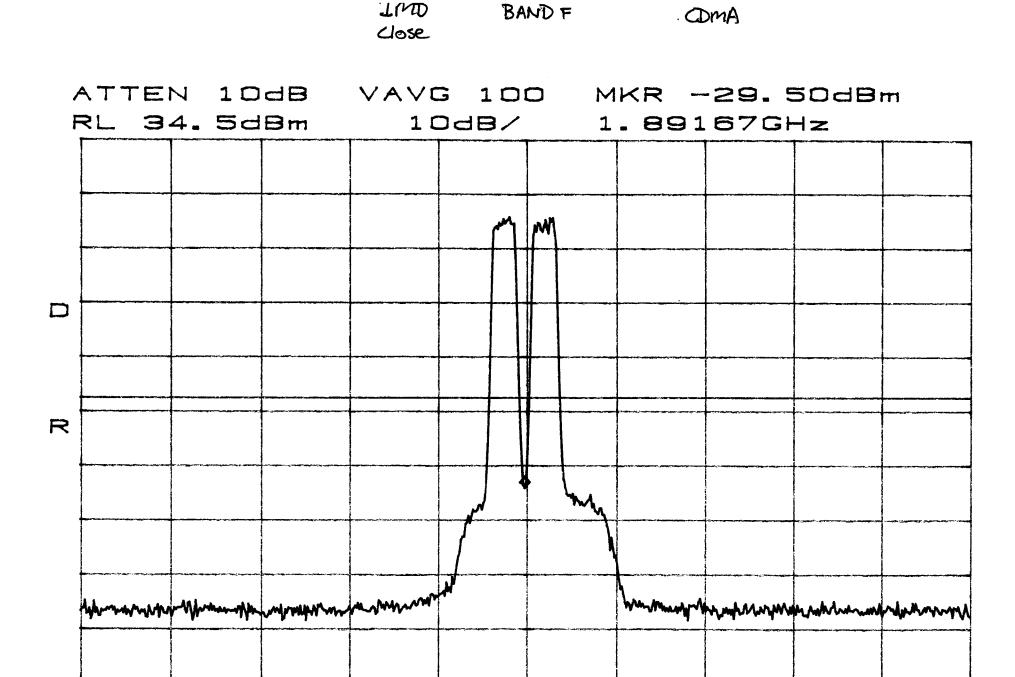
File No. NC107868, Page 262 of 292



START 1.00GHz STO *RBW 1.0MHz VBW 1.0MHz

SWP 380me

File No. NC107868, Page 263 of 292



CENTER 1.89175GHz SPAN 50.00MHz *RBW 100kHz VBW 100kHz SWP 50ms

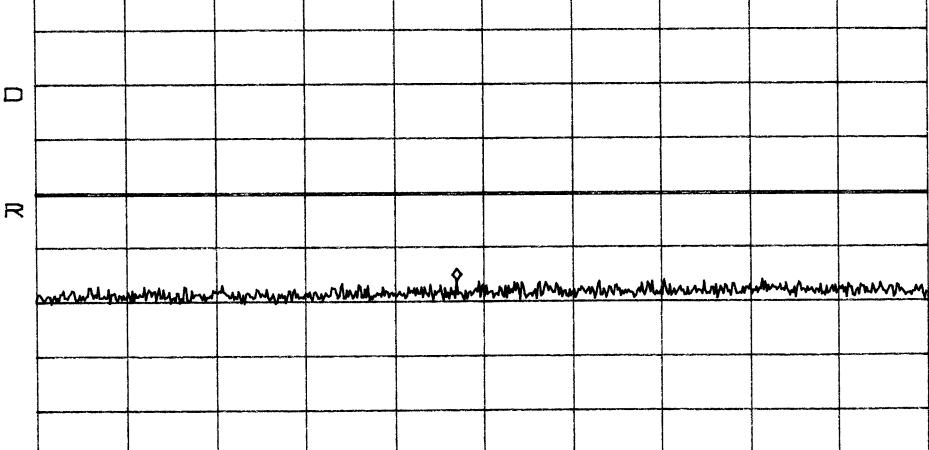
File No. NC107868, Page 264 of 292

IMD Close BAND F COMA

 *ATTEN 10dB
 MKR -28.50dBm

 RL 37.5dBm
 10dB/
 485.9MHz

 Image: Constraint of the second secon

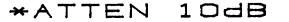


START 30.0MHz STOP 1.0000GHz *RBW 100kHz VBW 100kHz SWP 250ms

File No. NC107868, Page 265 of 292



BAND F COMA

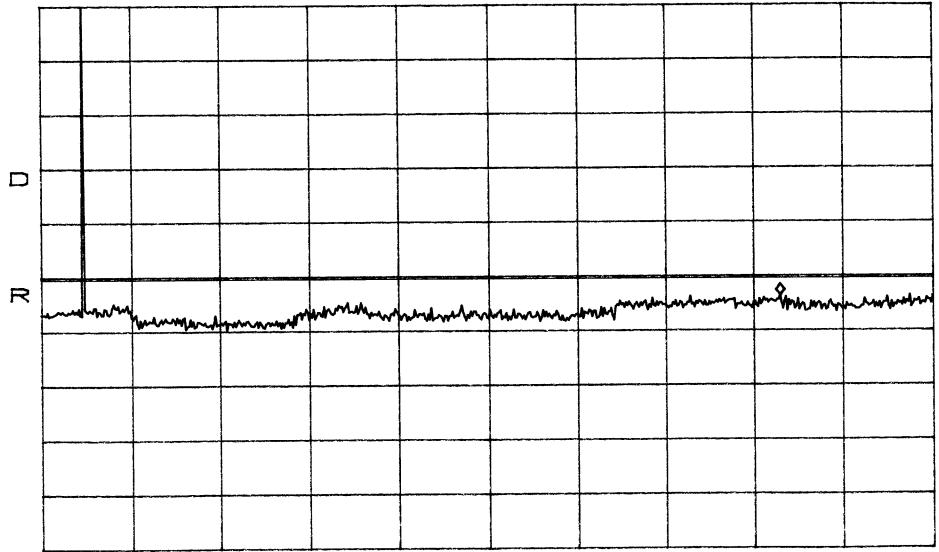


MKR -16.00dBm

RL 37.5dBm

10dB/

16.77GHz



STOP 20.00GHz 1. DDGHz START *RBW 1. OMHZ VBW 1. OMHZ SWP 380me

File No. NC107868, Page 266 of 292

BAND F < DMA IMD

10dB/

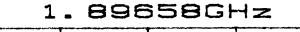
Apart

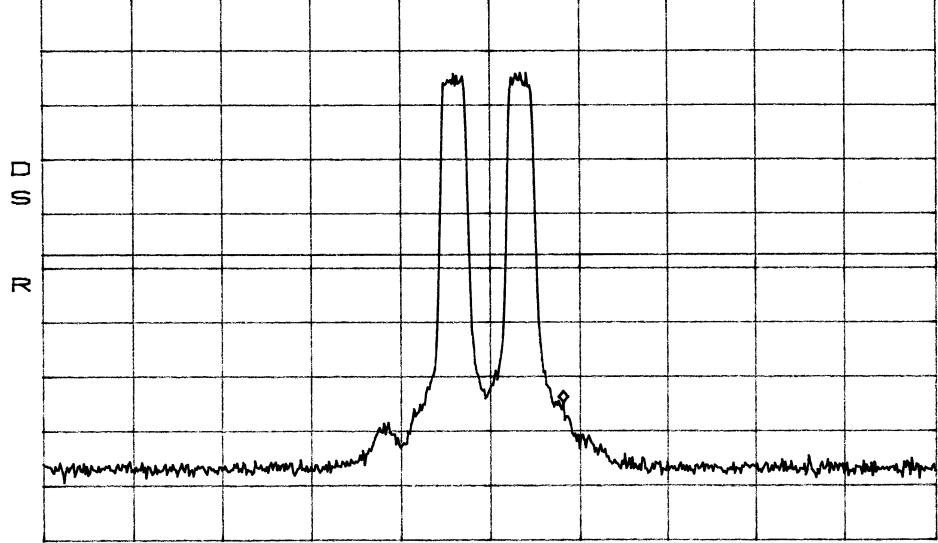
VAVG 100

MKR -40.17dBm

RL 34.5dBm

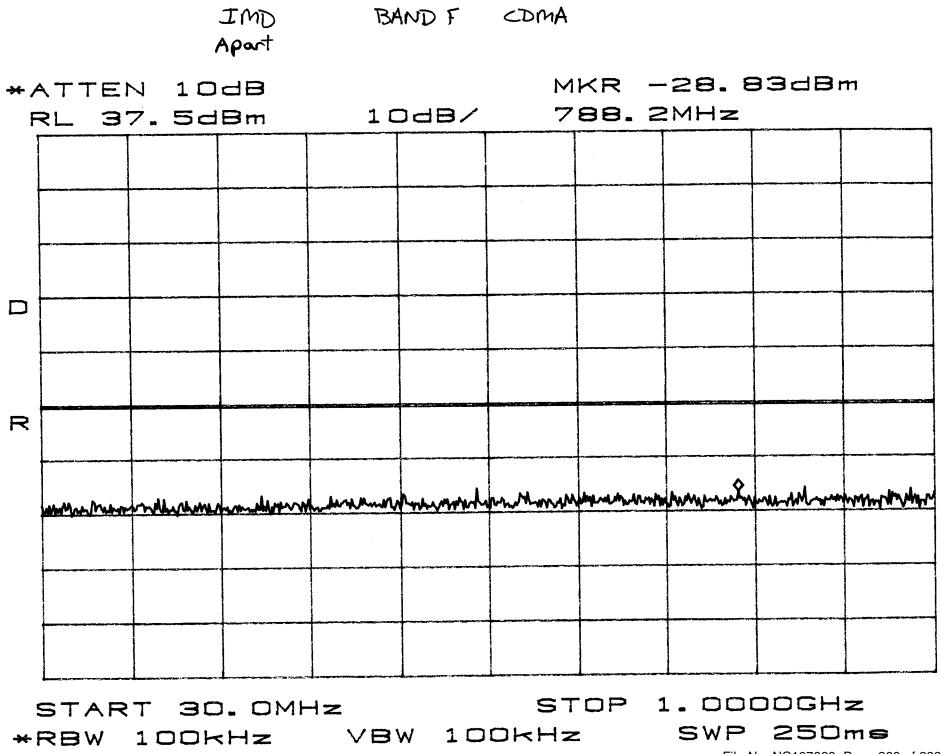
ATTEN 10dB



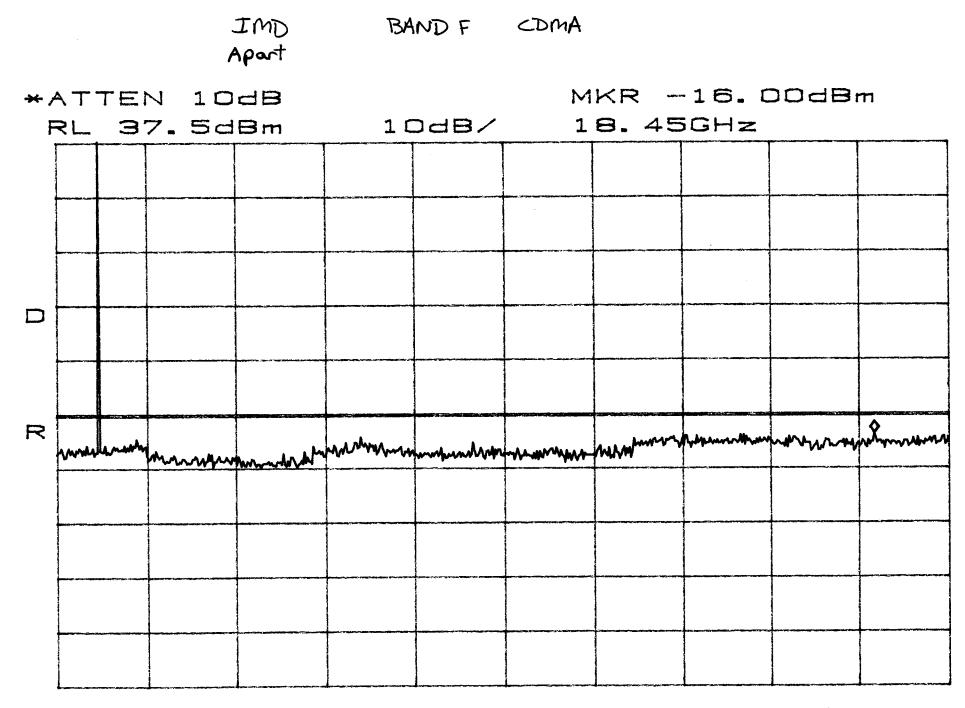


SPAN 50.00MHz CENTER 1.89250GHz 100kHz VBW 100kHz SWP 50ms *RBW

File No. NC107868, Page 267 of 292



File No. NC107868, Page 268 of 292



STOP 20. DOGHz 1. 00GHz START VBW 1.OMHz *RBW 1. OMHz

380ms SWP

File No. NC107868, Page 269 of 292

CDMA Mask Test for ADC Inc. Digivance 1900 MHz RIU Models DGVI-310000RIU, DGVI-320000RIU, DGVI-330000RIU, DGVI-340000RIU, DGVI-350000RIU, and DGVI-360000RIU.

For the CDMA modulation type emission mask test, the average value of the center frequency will be 16.23dB down from the CW peak power. On any frequency removed from the center carrier frequency by up to 750 kHz the emissions are at or below 16.23dB below the peak power. On any frequency between 750 kHz and 1.98 MHz the emissions are below 45dB below the peak power. On any frequency removed from the carrier frequency by more than 1.98 MHz the emissions are below 60dB below the peak power. The test was performed at the low, mid, and high parts of the respective A, B, C, D, E, AND F PCS bands.

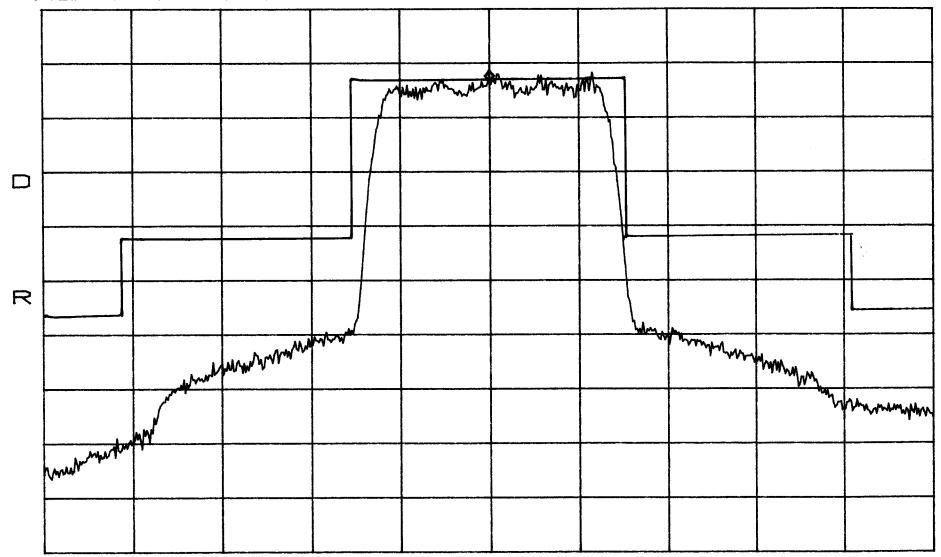
Results: Pass (see plots) BAND A CDMA MASK LOW



RL 34.2dBm

1 10dB/

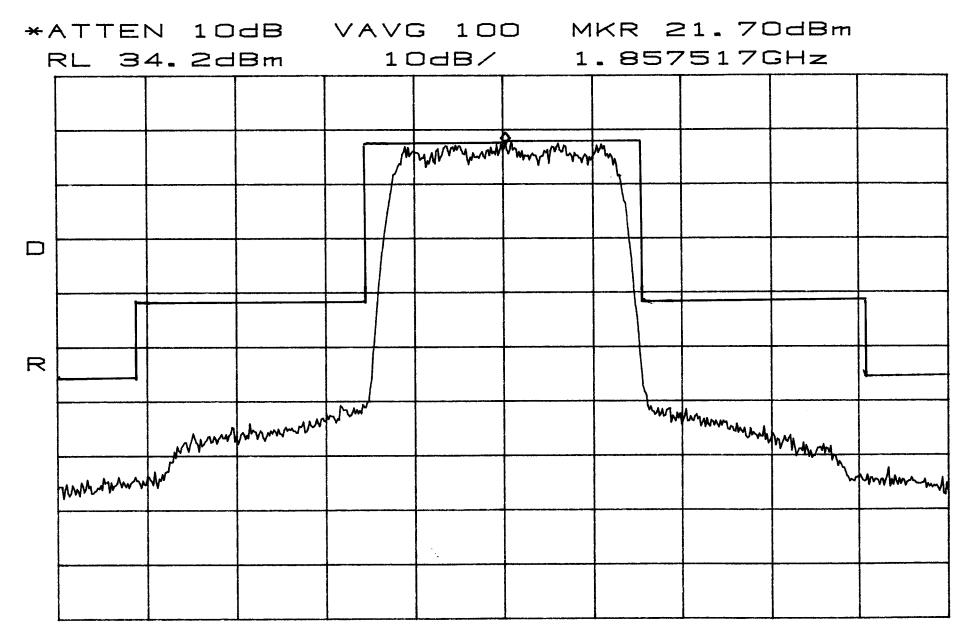
1.850200GHz



CENTER 1.850200GHZ SPAN 5.000MHZ *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 271 of 292

BAND A CDMA MASK mid



CENTER 1.857500GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 272 of 292

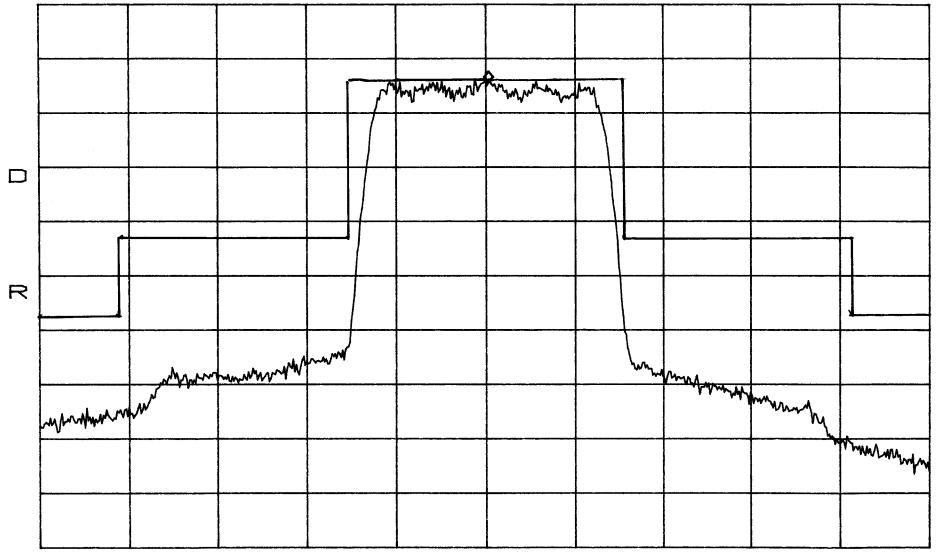
BAND A COMA MASK High



RL 34.2dBm

10dB/ 1.8648

1.864817GHz



CENTER 1.864800GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 273 of 292

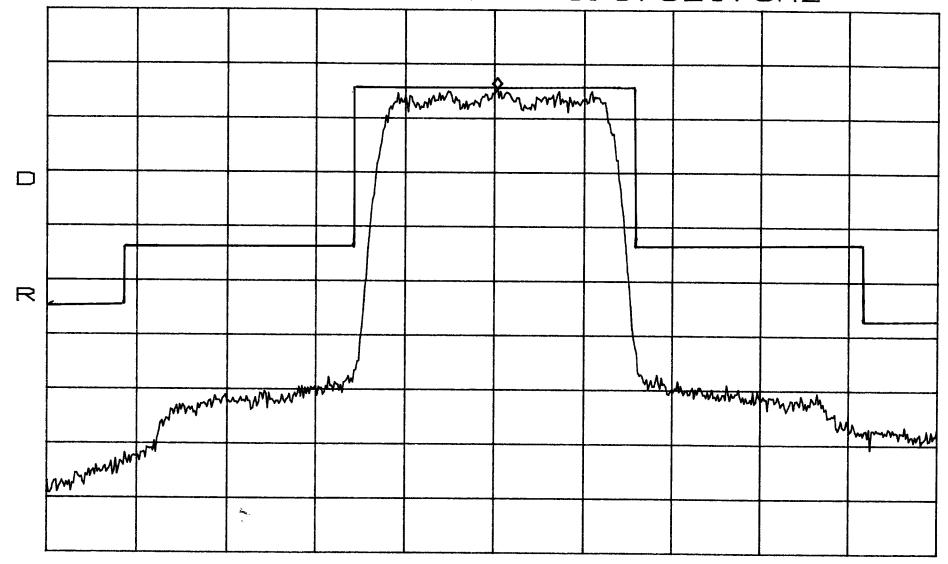
BAND B

CDMA MASK LOW

*ATTEN 10dB VAVG 100 MKR 19.70dBm

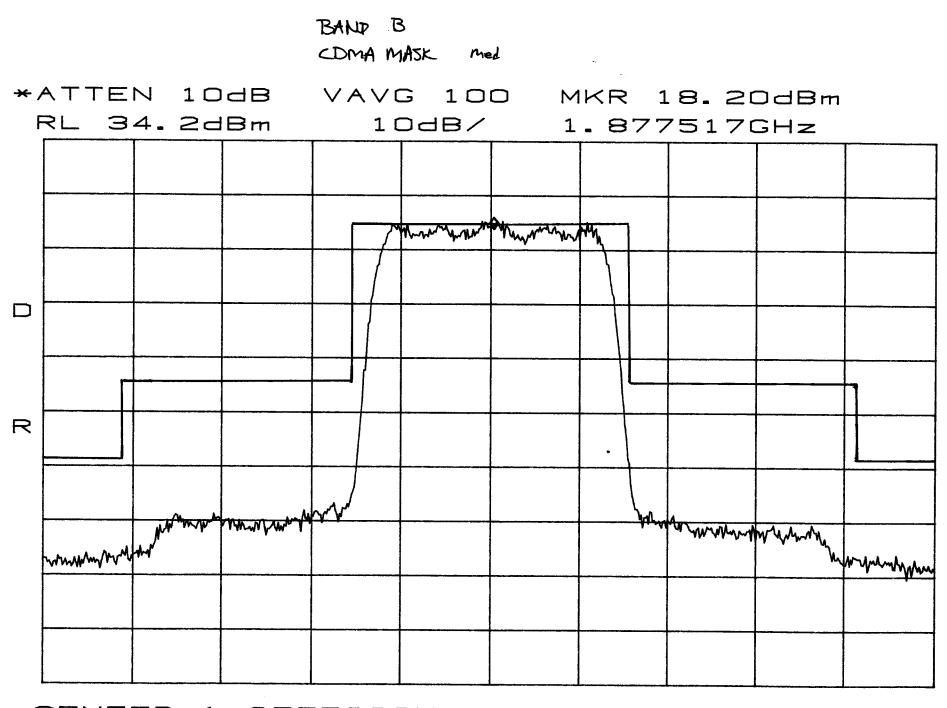
RL 34.2dBm

10dB/ 1.870217GHz



CENTER 1.870200GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 274 of 292



CENTER 1.877500GHz SF *RBW 30kHz VBW 30kHz

SPAN 5.000MHz

SWP 50ms File No. NC107868, Page 275 of 292 BAND B

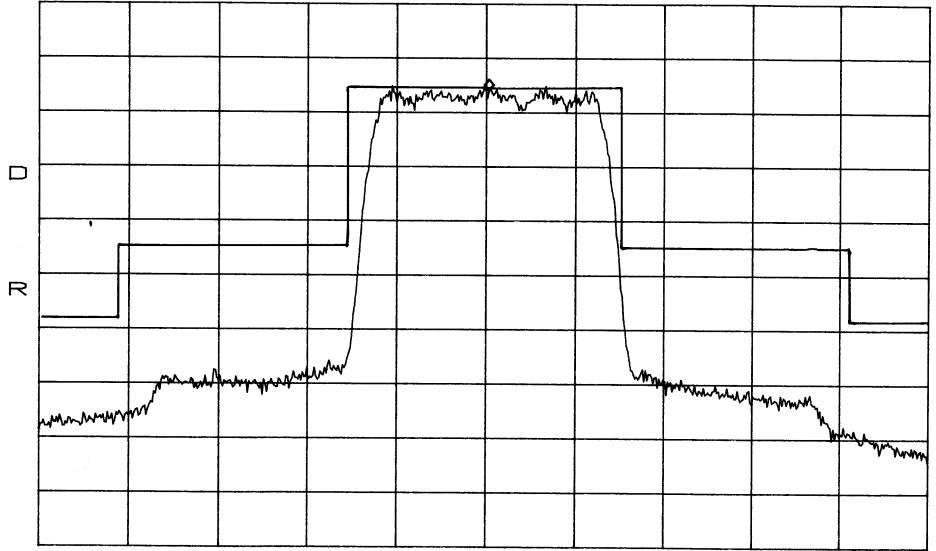
CDMA MASK High



RL 34.2dBm

10dB/

1.884817GHz



CENTER 1.884800GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 276 of 292

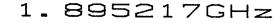
BAND C

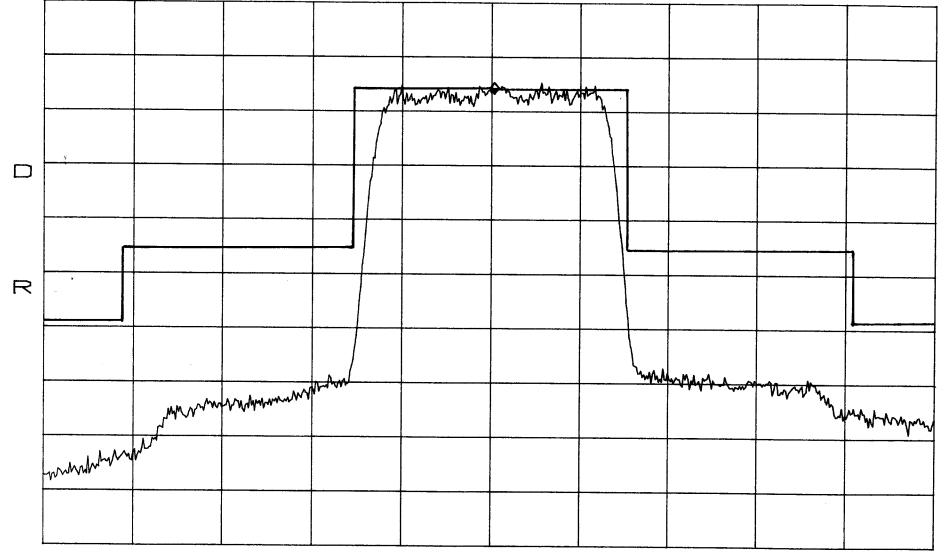
CDMA MASK LOW

*ATTEN 10db VAVG 100 MKR 17.53dBm

RL 34.2dBm

10dB/





CENTER 1.895200GHz SPAN 5,000MHz *RBW 30kHz VBW 30kHz SWP 50ms

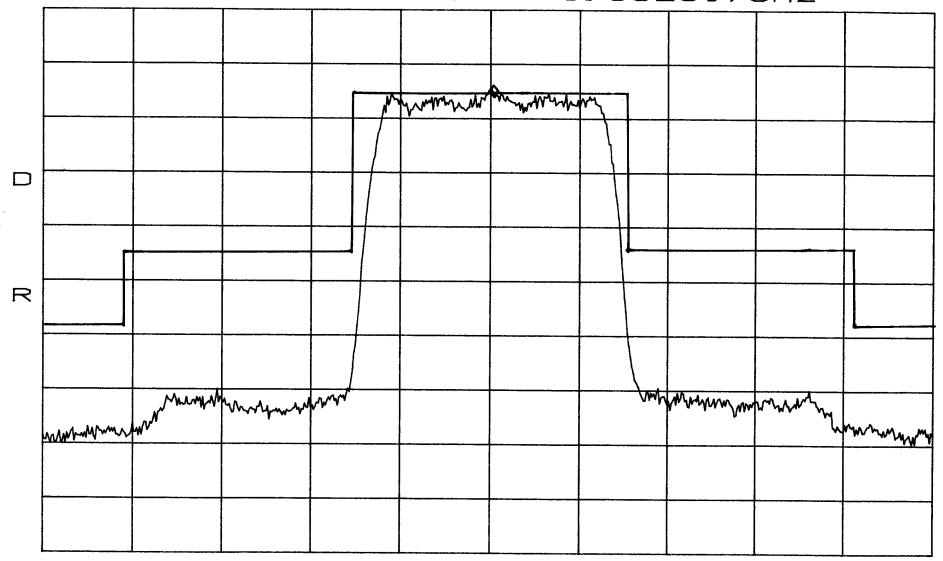
File No. NC107868, Page 277 of 292

BAND C CDMA MASK mid

*ATTEN 10dB VAVG 100 MKR 18.37dBm

RL 34.2dBm

10dB/ 1.902517GHz



CENTER 1.902500GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 278 of 292

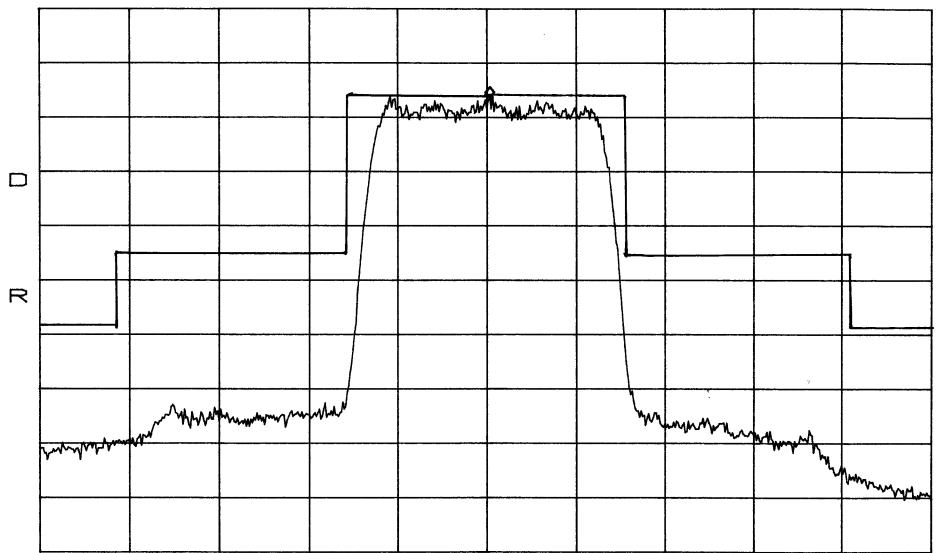
BAND C

CDMA MASK High

*ATTEN 10dB VAVG 100 MKR 17.87dBm

RL 34.2dBm

10dB/ 1.909817GHz



CENTER 1.909800GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

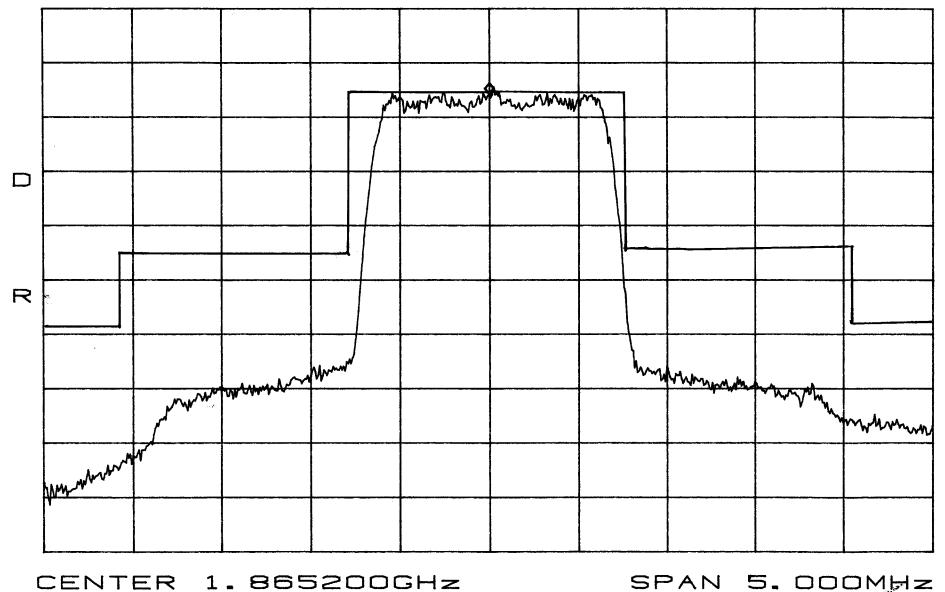
File No. NC107868, Page 279 of 292

BAND D COMA MASK LOW



RL 34.2dBm

10dB/ 1.865200GHz

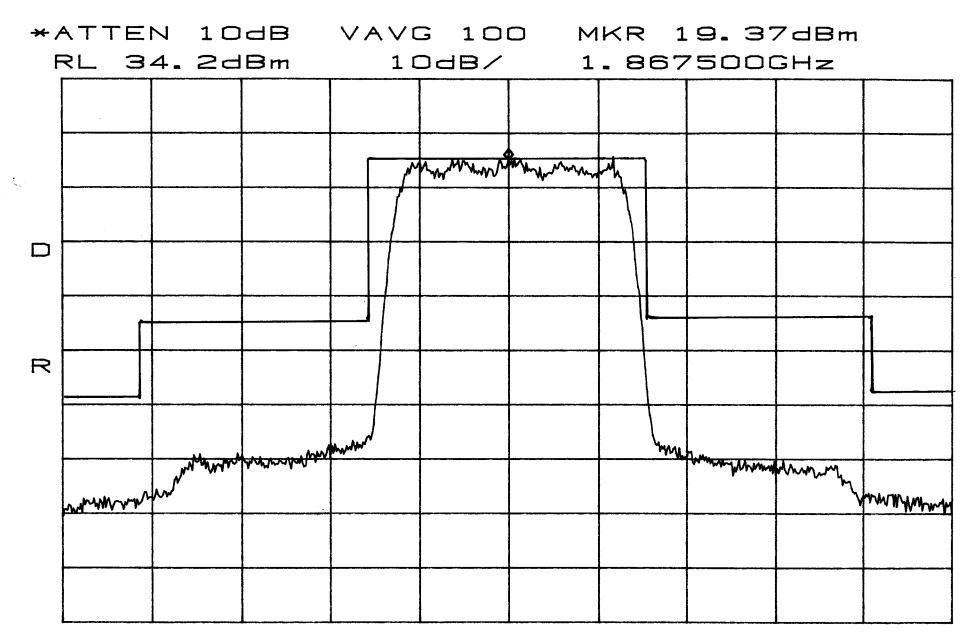


*RBW 30kHz VBW 30kHz

SWP 50ms

File No. NC107868, Page 280 of 292





CENTER 1.867500GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 281 of 292

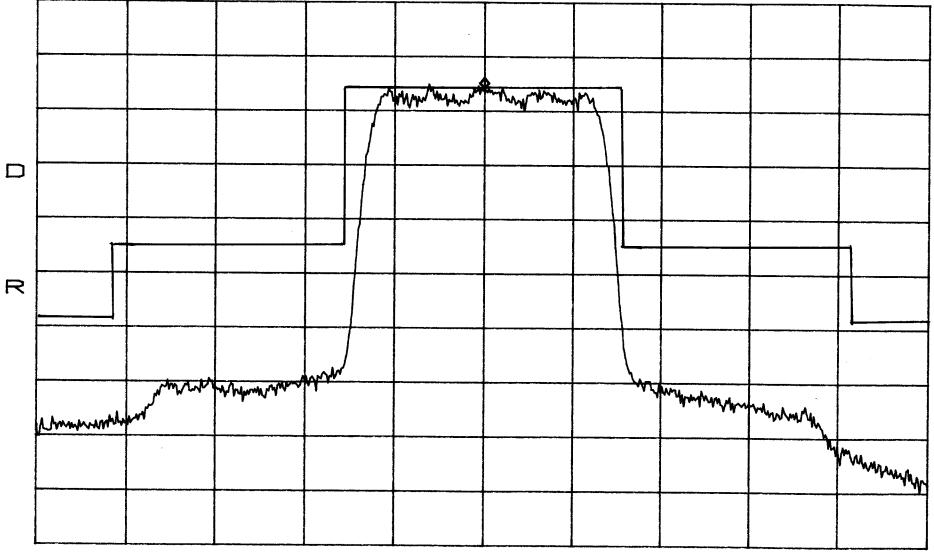
BAND D CDMA MASK High

*ATTEN 10db VAVG 100 MKR 18.37dBm

RL 34.2dBm

10dB/

1.869800GHz



CENTER 1.869800GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

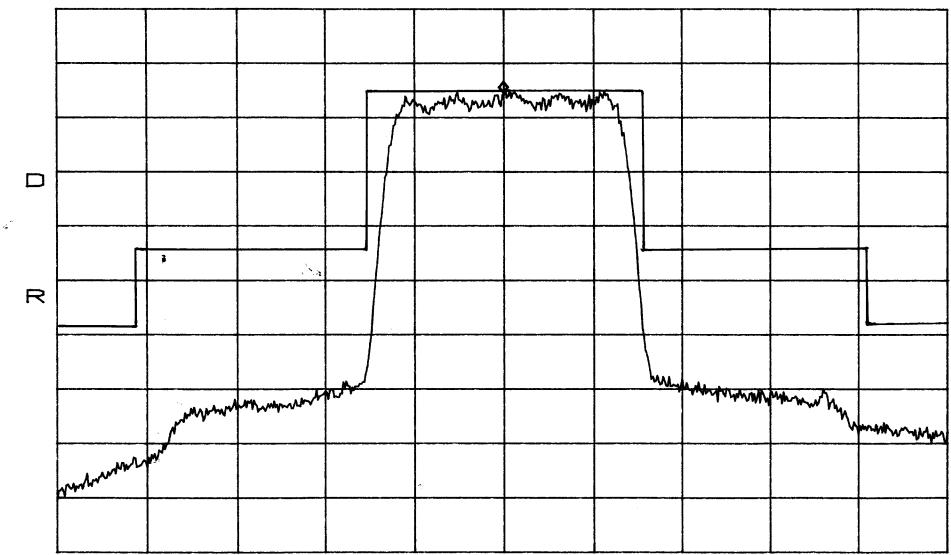
File No. NC107868, Page 282 of 292

BAND E CDMA MASK LOW

*ATTEN 10db VAVG 100 MKR 18.87dbm

RL 34.2dBm

10dB/ 1.885200GHz



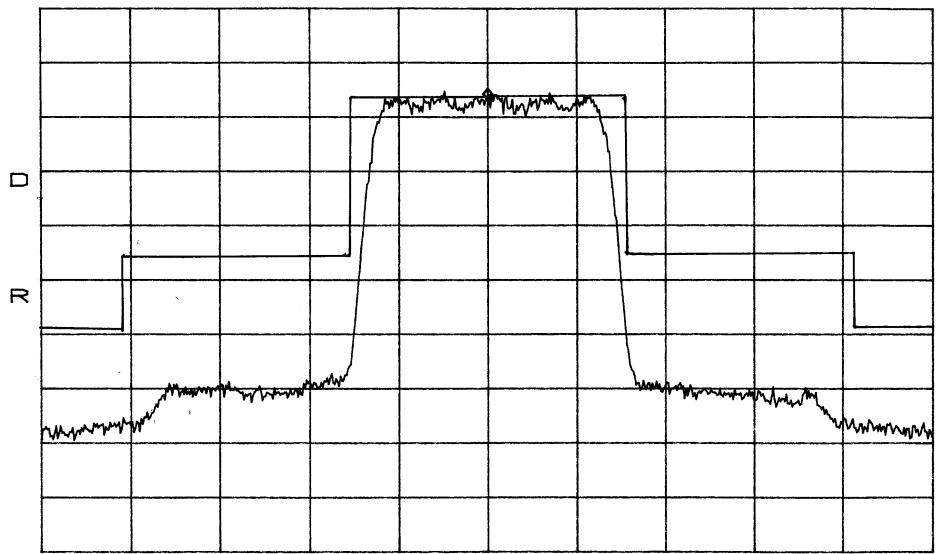
CENTER 1.885200GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 283 of 292

BAND E CDMA MASK mid

*ATTEN 10dB VAVG 100 MKR 17.53dBm

RL 34.2dBm 10dB/ 1.887500GHz



CENTER 1.887500GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 284 of 292

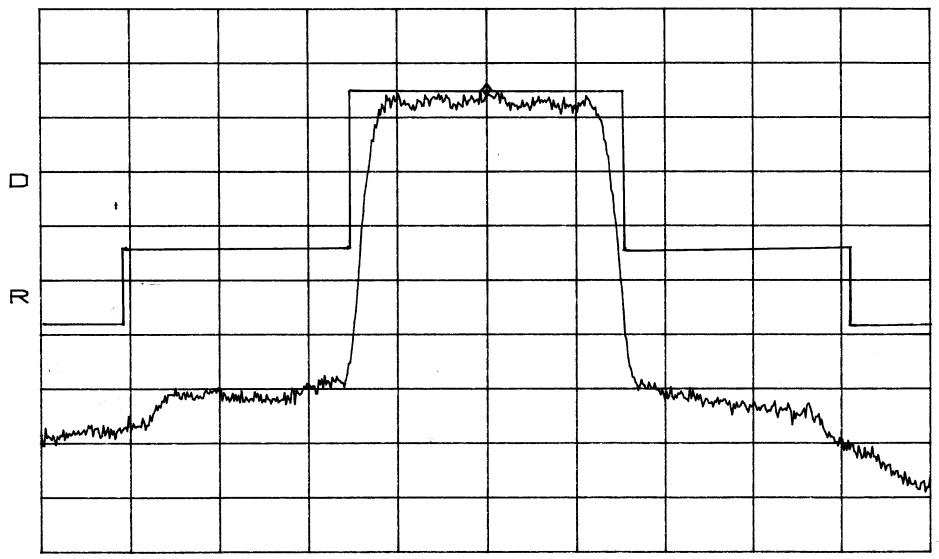
BAND E CDMA MASK High



RL 34.2dBm

10dB/ 1

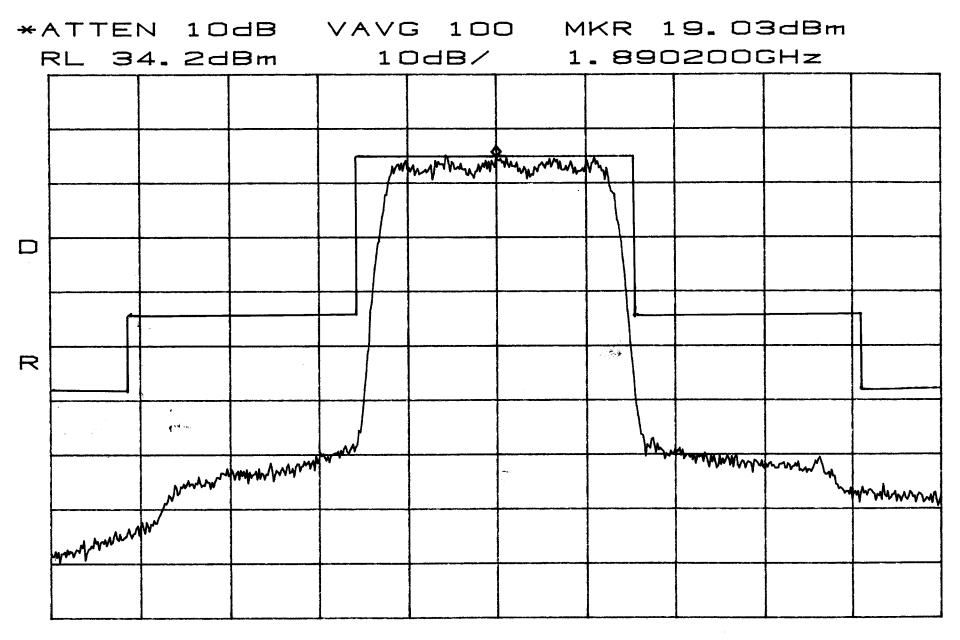
1.889800GHz



CENTER 1.889800GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 285 of 292

TBAND F CDMA MASK LOW



CENTER 1.890200GHz SPAN 5.000MHz *RBW 30kHz VBW 30kHz SWP 50ms

File No. NC107868, Page 286 of 292

-- ...

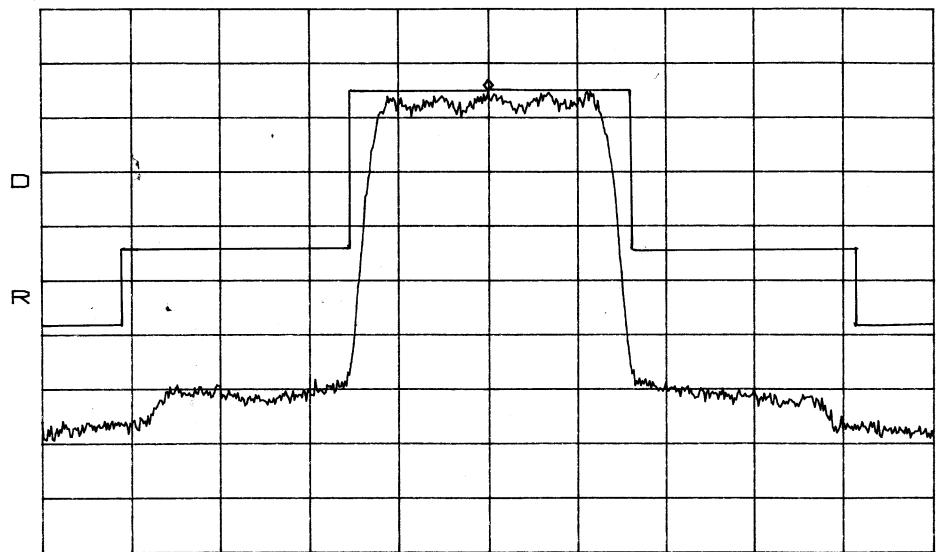
BAND F CDMA MASK mid



RL 34.2dBm

سأبعد

10dB/ 1.892500GHz



CENTER 1.892500GHzSPAN 5.000MHz*RBW 30kHzVBW 30kHzSWP 50ms

File No. NC107868, Page 287 of 292

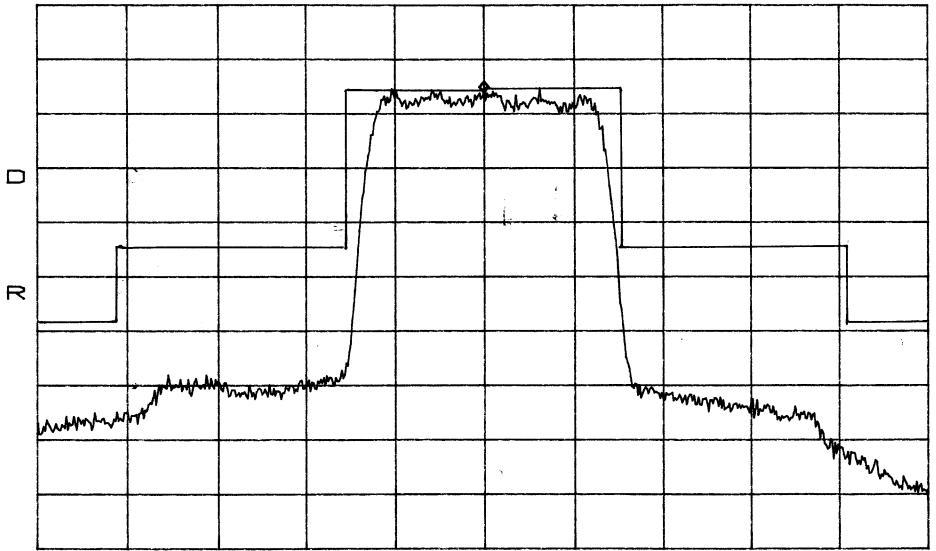
BAND F CDMA MASK High

*ATTEN 10dB VAVG 100 MKR 18.20dBm

RL 34.2dBm

10dB/

1.894800GHz



CENTER 1.894800GHz *RBW 30kHz VBW 30kHz

SPAN 5. DOOMHZ SWP 50ms

File No. NC107868, Page 288 of 292



Equipment Under Test (EUT) Te	Equipment Under Test (EUT) Test Operation Mode - Emission tests :				
The device under test was operated u	under the following conditions during emissions testing:				
□ - Standby					
I - Test program (H - Pattern)					
- Test program (color bar)					
 Test program (customer specific) 					
I - Practice operation					
 Normal Operating Mode 					
□- <u></u>					
-					
Configuration of the device under tes	st:				
The following peripheral devices and	interface cables were connected during the measurement:				
	Turoo				
D	Type :				
D	Type :				
□	Type : Type :				
D	Type : Type :				
0	Туре :				
□ - unshielded power cable					
□ - unshielded cables					
□ - shielded cables	MPS.No.:				
- customer specific cables					
D					
D -					

File No. NC107868, Page 289 of 292



DEVIATIONS FROM STANDARD:

None

GENERAL REMARKS:

SUMMARY:

The requirements according to the technical regulations are

- met

□ - **not** met.

The device under test does

I - fulfill the general approval requirements mentioned on page 3.

□ - **not** fulfill the general approval requirements mentioned on page 3.

Testing Start Date:

11 December 2001

Testing End Date:

12 December 2001

- TÜV PRODUCT SERVICE INC -

Joel T. Sohneiler

Reviewed By: J. T. Schneider

5 Johnbourt

Tested By: G. S. Jakubowski

TÜV PRODUCT SERVICE INC

19333 Wild Mountain Road

Taylors Falls MN 55084-1758

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TEST SETUP FOR EMISSIONS TESTING

See Test Setup Exhibit



Radiated emission (case radiation) test setup photos

See Test Setup Exhibit

TÜV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0

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Appendix A

Product Information Form

TÜV PRODUCT SERVICE INC 19333 Wild Mountain Road Taylors Falls MN 55084-1758 Tel: 651 638 0297 Fax: 651 638 0298 Rev.No 1.0

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PLEASE COMPLETE THIS DOCUMENT IN FULL, ENTERING N/A IF THE FIELD IS NOT APPLICABLE.				
	his information will be input into time to get HELP for the current		below.	
Company:	ADC Inc.			
Address:	PO Box 1101			
	Minneapolis, MN 55440-1	101		
Contact:	Mark F. Miska	Position:	Compliance Engineer	
Phone:	(952) 233-6479	Fax:	(952) 233-6388	
E-mail Address:	mark_miska@adc.com			
General Equipment	Description NOTE: This li	nformation will be input into	your test report as shown below.	
EUT Description	In-building wireless comm	unication system		
EUT Name	Digivance In-building Co	overage Solution		
Model No.:	DGVI-3X0000RIU	Serial No.:		
Product Options:	'X' in model nu	mber (above) is general	for 1-6 in respecive bands of A-F	
Configurations to be	tested: Typical unit F	Remote Interface Unit Ba	nd A, B, C, D, E, F	
Test Objective				
EMC Directive 89	/336/EEC (EMC)	FCC: Class		
Std: Machinery Directi	ve 89/392/EEC (EMC	VCCI: Class		
Std:	irective 93/42/EEC (EMC)	Canada: Class		
Std:	. ,			
U Vehicle Directive	72/245/EEC (EMC)			
	auidance for Premarket			
	missions (EMC)			
TÜV Product Servic	e Certification Requested			
Attestation of Con	•••	International EM	• •	
Certificate of Con		Compliance Doc		
	(N/A for vehicles) s selected to show additiona	Class I	Class II Class III	
- 			,	
Attendance Test will be: 🛛	Attended by the customer	Unattended by the	e customer	
	กแอกนอน มรุ เกษ เนอเบกเฮโ			



Failure - Complete this section if	testing will not be	attended by the custor	ner.			
Failure - Complete this section if testing will not be attended by the customer. If a failure occurs, TUV Product Service should: Call contact listed above, if not available then stop testing. Continue testing to complete test series. Continue testing to define corrective action. Stop testing.						
EUT Specifications and Requirem	ents					
Length: <u>17"</u> Width: _	<u>12"</u> ł	leight: 4"	Weight: <u>25 LB</u>			
Power Requirements						
Regulations require testing to be performe European power is typically 230 VAC 50 H	ed at typical power ratil Iz or 400 VAC 50 Hz, sin	ngs in the countries of inten gie and three phase, respec	ded use. (i.e., tively)			
		sure battery life is sufficient to				
# of Phases: 1						
Current (Amps/phase(max)): <u>5</u>	Current (Amps/phase(no	ominal)):				
Other						
Other Special Requirements						
None						
Typical Installation and/or Operati	ng Environment					
(ie. Hospital, Small Business, Indu Office Building						
EUT Power Cable						
	novable	Length (in meters):	< 3			
Shielded OR 🛛 Uns	shielded					



EUT Interface	Po	rts a	and	Cab	les							
Interface					eldiı	ng						ليتسنيس
Туре	Analog	Digital	Qty	Yes	No	Туре	Termination	Connector Type	Port Termination	Length (in meters)	Removable	Permanent
EXAMPLE: RS232		x	2	×		Foil over braid	Coaxial	Metallized 9- pin D-Sub	Characteristic Impedance	6		
RF (Coax)	Ø		3		Ö			N	50 ohms	6	Ø	Ō
6 pin conn	Ø		1					Right agle Closed end header				Ø



EUT Software.			
Revision Level:	None		
Description:	None		

EUT Operating Modes to be Tested -- list the operating modes to be used during test. It is recommended the equipment be tested while operating in a typical operation mode. FCC testing of personal computers and/or peripherals requires that a simple program generate a complete line of upper case H's. Provide a general description of all software, firmware, and PLD algorithms used in the equipment. List all code modules as described above, with the revision level used during testing. Consult with your TÜV Product Service Representative if additional assistance is required.

- 1. Typical (Reverse signal transfer from "Reverse In" port to "Antenna" port). Using multiple modulation types.
- 2.
- 3.

Description	Model #	Serial #	FCC ID #
Remote Interface Unit	DGVI-310000RIU		
Remote Interface Unit	DGVI-320000RIU		
Remote Interface Unit	DGVI-330000RIU		
Remote Interface Unit	DGVI-340000RIU		
Remote Interface Unit	DGVI-350000RIU		
Remote Interface Unit	DGVI-360000RIU		



Support Equipment	List and describe all support	equipment which is not pa	rt of the EUT. (i.e. peripherals, s	imulators, etc)
Description	Model #	Serial #	FCC ID #	
Oppillator Francis				

	Derived			
Frequency	Frequency	Component # / Location	Description of Use	
	·			

Power Supply			
Manufacturer	Model #	Serial #	Туре
Power One	MPU150-S261		Switched-mode: (Frequency) 200KHz
			Switched-mode: (Frequency) Linear Other:

Power Line Filters			
Manufacturer	Model #	Location in EUT	
	······································		





Critical EMI Components (Capacitors, ferrites, etc.)					
Component # / Location	Qty	Part # or Value	Manufacturer	Description	
-					

EMC Critical Detail -- Describe other EMC Design details used to reduce high frequency noise.

(PLEASE INSERT "ELECTRONIC SIGNATURE" BELOW IF POSSIBLE)

Authorization Signatures

Customer authorization to perform tests according to this test plan.	Date
Test Plan/CDF Prepared By (please print)	Date
Reviewed by TÜV Product Service Associate	Date